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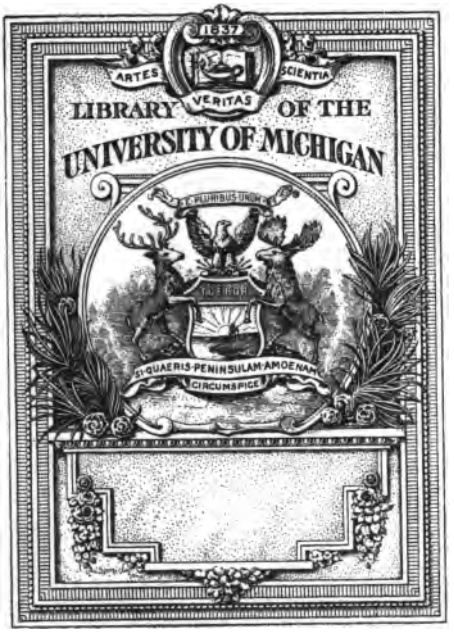
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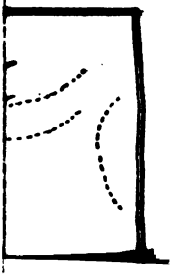

CATALOGUE

OF

DARTMOUTH COLLEGE

TOGETHER WITH THE

AMOS TUCK SCHOOL OF ADMINISTRATION
AND FINANCE

THE THAYER SCHOOL OF CIVIL ENGINEERING

AND

THE MEDICAL SCHOOL

FOR THE YEAR

1904-1905

HANOVER, N. H.
PRINTED FOR THE COLLEGE
1904

UNIVERSITY PRESS:
JOHN WILSON AND SON, CAMBRIDGE, U. S. A.

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COLLEGE CALENDAR

DARTMOUTH COLLEGE

1904

September 15–19 . . Examinations for Admission — Thursday to Monday.

September 22 . . . Academic year began — Thursday morning.

October 11 . . . . Athletic Field-day; a holiday.

November 24 . . . Thanksgiving Day; a holiday.

Recess from December 22, 10 A.M., *to January* 4, *inclusive.*

1905

January 27 to Feb. 7 First Semester Examinations.

March 8 . . . . . The Smith and Rollins Prize Speaking — 8 P.M.

Recess from April 12, 10 A.M., *to April* 25, *inclusive.*

June 14–24 . . . . Second Semester Examinations.

June 21–24 . . . . Examinations for Admission.

June 24 . . . . . Speaking for the Barge medal and for the "Class of 1866" prizes — Saturday, 8 P.M.

June 25 . . . . . Baccalaureate Discourse — Sunday, 10.30 A.M.

Address before the Y. M. C. A. — Sunday, 8 P.M.

June 26 . . . . . Class Day Exercises — Monday, 2.30 P.M.

June 27 . . . . . Annual Meeting of the Phi Beta Kappa Society — Tuesday, 8.30 A.M.

Address — Alumni Association — 10.30 A.M.

Annual Meeting of the Alumni Association — 2.30 P.M.

Greek Letter Society Reunions — 5 P.M.

President's Reception, College Hall, 9–11 P.M.

June 28 . . . . . COMMENCEMENT — Last Wednesday in June.

Summer Vacation of Twelve Weeks.

1905

September 14–18 . . Examinations for Admission — Thursday to Monday.

September 19, 20 . . Registration — Tuesday, Wednesday.

September 21 . . . Academic year begins — Thursday morning.

December 22 . . . Christmas recess begins.

AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

1904

September 22 . . . Year began — Thursday morning.
November 24 . . . Thanksgiving Day; a holiday.

Recess from December 22, 10 A.M., *to January* 4, *inclusive.*

1905

January 27 to Feb. 7 Examinations for First Year Course.
April 12–25 . . . . Recess for First Year Course.
April 26 . . . . . Second Year Course ends.
June 8–16 . . . . Examinations for First Year Course.

THAYER SCHOOL OF CIVIL ENGINEERING

1904

July 15 . . . . . First Year Course began.
September 15 . . . Second Year Course began.
December 22 . . . Recess of eight days begins.

1905

April 26 . . . . . Thayer School Year ends.

MEDICAL SCHOOL

1904

August 15 . . . . Third and Fourth Year Courses began.
September 22 . . . First and Second Year Courses began.

Recess from December 22, 10 A.M., *to January* 4, *inclusive.*

1905

March 31 . . . . Third and Fourth Year Courses end.
Examinations by Delegates.
Graduating Exercises.

Recess from April 12, 10 A.M. *to April* 25, *inclusive.*

June 24 . . . . . First and Second Year Courses end.

CHARTER

THE

CHARTER OF DARTMOUTH COLLEGE

GEORGE THE THIRD by the grace of GOD of Great Britain France and Ireland KING Defender of the Faith, and so forth. —

To all to whom these Presents shall come.

GREETING.

WHEREAS it hath been represented to our Trusty and well beloved JOHN WENTWORTH Esquire Governor and Commander in Chief in and over our Province of NEW HAMPSHIRE in New England in AMERICA, that the Reverend ELEAZER WHEELOCK of Lebanon in the Colony of Connecticut in New England aforesaid, now Doctor in Divinity, did on or about the year of our Lord one thousand seven hundred and Fifty four, at his own expence, on his own Estate and Plantation set on foot an INDIAN Charity School and for several years through the assistance of well-disposed Persons in America, cloathed, maintained and educated a number of the Children of the Indian Natives, with a view to their carrying the Gospel in their own Language and spreading the knowledge of the great Redeemer among their Savage Tribes, and hath actually employ'd a number of them as Missionaries and Schoolmasters in the Wilderness for that purpose: and by the blessing of GOD upon the endeavours of said Wheelock the design became reputable amoung the Indians insomuch that a larger number desired the Education of their Children in said School; and were also disposed to receive Missionaries and Schoolmasters in the Wilderness more than could be supported by the charitable Contributions in these American Colonies. — WHEREUPON the said Eleazer Wheelock thought it expedient that endeavours should be used to raise Contributions from well disposed Persons in England for the carrying on and extending said undertaking, And for that purpose said Eleazer Wheelock requested the Reverend Nathaniel

Whitaker now Doctor in Divinity to go over to England for that purpose, and sent over with him the Reverend Samson Occom an Indian Minister who had been educated by the said Wheelock, And to enable the said Whitaker to the more successful performance of said Work on which he was sent, said Wheelock gave him a full Power of Attorney by which said Whitaker solicited those worthy & generous Contributors to the Charity VIZ^{t}. The Right Honorable WILLIAM Earl of DARTMOUTH, The Honorable Sir SIDNEY STAFFORD SMYTHE Knight, one of the Barons of his Majesty's Court of Exchequer, JOHN THORNTON of Clapham in the County of Surrey Esquire, SAMUEL ROFFEY of Lincoln's Inn fields in the County of Middlesex Esquire, CHARLES HARDY of the parish of Saint Mary-le-bonne in said County Esquire, DANIEL WEST of Christ's church Spitalfields in the County aforesaid Esquire, SAMUEL SAVAGE of the same place Gentleman, JOSIAH ROBERTS of the parish of Saint Edmund the King Lombard Street, London Gentleman, and ROBERT KEEN of the parish of Saint Botolph Aldgate London, Gentleman, to receive the several Sums of Money which should be contributed, and to be Trustees for the Contributors to such Charity, which they chearfully agreed to. Whereupon the said Whitaker did by virtue of said Power of Attorney constitute and appoint the said Earl of Dartmouth Sir Sydney Stafford Smythe, John Thornton, Samuel Roffey, Charles Hardy & Daniel West Esquires, and Samuel Savage Josiah Roberts and Robert Keen Gentlemen to be Trustees of the Money which had then been contributed, and which should by his means be contributed for said Purpose; which Trust they have accepted as by their engrossed Declaration of the same under their Hands and Seals well executed fully appears, and the same has also been ratified by a deed of Trust well executed by the said Wheelock; — And the said Wheelock further represents that he has by power of Attorney for many weighty reasons, given full Power to the said Trustees to fix upon and determine the place for said School most subservient to the great end in view, and to enable them understandingly to give the preference, the said Wheelock has laid before the said Trustees the several Offers which have been generously made in the several Governments in America to encourage and invite the settlement of said School among them for their own private emolument, and the increase of Learning in their respective places as well as for the furtherance of the general design in view. And whereas a large number of the Proprietors of Lands in the western part of this our Province of New Hampshire,

animated & excited thereto by the generous example of his Excellency their Governor, and by the liberal Contributions of many Noblemen and Gentlemen in England; and especially by the consideration that such a situation would be as convenient as any for carrying on the great design among the Indians; and also considering that without the least impediment to the said design the same School may be enlarged & improved to promote Learning among the English, & be a means to supply a great number of Churches & Congregations which are likely soon to be formed in that new Country with a learned & orthodox ministry; they the said Proprietors have promised large Tracts of Land for the uses aforesaid, provided the School shall be settled in the western part of our said Province. And they the said Right Honorable, Honorable and worthy Trustees before mentioned having maturely consider'd the reasons & arguments in favour of the several Places proposed, have given the preference to the western part of our said Province lying on Connecticut River, as a situation most convenient for said School; And the said Wheelock has further represented a necessity of a legal Incorporation in order to the safety and well being of said Seminary, and its being capable of the tenure & disposal of Lands & bequests for the use of the same. And the said Wheelock has also represented that for many weighty reasons it will be expedient at least in the infancy of said Institution or 'till it can be accommodated in that new Country and he & his Friends be able to remove and settle by and round about it, that the Gentlemen whom he has already nominated in his last Will (which he has transmitted to the aforesaid Gentlemen of the Trust in England) to be Trustees in America should be of the Corporation now proposed & also as there are already large Collections for said School in the hands of the aforesaid Gentlemen of the Trust in England and all reason to believe from their singular wisdom, piety and zeal to promote the Redeemers cause (which has already procured for them the utmost confidence of the Kingdom) we may expect they will appoint Successors in time to come who will be men of the same Spirit whereby great good may & will accrue many ways to the institution & much be done by their example and influence to encourage and facilitate the whole design in view; for which reason said Wheelock desires that the Trustees aforesaid may be vested with all that power therein which can consist with their distance from the same KNOW YE THEREFORE, that We considering the Premises and being willing to encourage the laudable & charitable design of spreading Christian

Knowledge among the Savages of our American Wilderness and also that the best means of Education be established in our Province of New Hampshire for the benefit of said Province, DO of our special grace certain knowledge and mere motion by and with the advice of our Council for said Province by these Presents Will, ordain, grant & constitute that there be a College erected in our said Province of New Hampshire by the name of DARTMOUTH COLLEGE for the education & instruction of Youth of the Indian Tribes in this Land in reading, writing & all parts of Learning which shall appear necessary and expedient for civilizing & christianizing Children of Pagans as well as in all liberal Arts and Sciences; and also of English Youth and any others, and the Trustees of said College may and shall be one body corporate and politick in deed action & name, and shall be called, named & distinguish'd by the Name of the TRUSTEES of DARTMOUTH COLLEGE And further we have willed given granted constituted and ordained and by this our present Charter of our special grace certain knowledge & mere motion with the advice aforesaid DO for us our heirs and successors forever will give grant constitute & ordain that there shall be in the said DARTMOUTH COLLEGE from henceforth and forever a body politick consisting of Trustees of said Dartmouth College And for the more full & perfect erection of said Corporation & body politick consisting of Trustees of Dartmouth College We of our special grace certain knowledge & mere motion DO by these Presents for us our Heirs & Successors make ordain constitute and appoint our trusty and well beloved JOHN WENTWORTH, Esquire Governor of our said Province and the GOVERNOR of our said Province of New Hampshire for the time being and our Trusty and well beloved THEODORE ATKINSON Esquire now President of our Council of our said Province GEORGE JAFFREY & DANIEL PIERCE Esquires both of our said Council and PETER GILMAN Esquire now Speaker of our House of Representatives in said Province & WILLIAM PITKIN, Esquire one of the Assistants of our Colony of Connecticut & our said trusty and well beloved ELEAZER WHEELOCK of Lebanon Doctor in Divinity, BENJAMIN POMROY of Hebron JAMES LOCKWOOD of Weathersfield TIMOTHY PITKIN & JOHN SMALLEY of Farmington & WILLIAM PATTEN of Hartford all of our said Colony of Connecticut Ministers of the Gospel. (the whole number of said Trustees consisting and hereafter forever to consist of TWELVE & no more) to be Trustees of said Dartmouth College in this our Province of New Hampshire And we do further of our special grace certain knowl-

edge and mere motion for us our Heirs and Successors will give grant and appoint that the said Trustees & their Successors shall forever hereafter be in deed act & name, a body corporate & politick & that they the said body corporate & politick shall be known & distinguished in all deeds grants bargains sales writings evidences or otherwise howsoever, & in all Courts forever hereafter plead and be impleaded by the Name of the Trustees of Dartmouth College and that the said Corporation by the name aforesaid shall be able and in law capable for the use of said Dartmouth College to have get acquire purchase receive hold possess and enjoy tenements hereditaments jurisdictions and franchizes for themselves and their Successors in fee simple or otherwise howsoever & to purchase receive or build any House or Houses or any other buildings as they shall think needful & convenient for the use of said Dartmouth College and in such Town in the western part of our said Province of New Hampshire as shall by said Trustees or the major part of them be agreed on their said agreement to be evidenced by an instrument in writing under their hands ascertaining the same And also to receive and dispose of any Lands goods chattels and other things of what nature soever for the use aforesaid And also to have accept and receive any rents profits annuities gifts legacies donations or bequests of any kind whatsoever for the use aforesaid so nevertheless that the yearly value of the Premises do not exceed the Sum of six thousand pounds Sterling[1] and therewith or otherwise to support and pay as the said Trustees or the major part of such of them as are regularly convened for that purpose shall agree the President Tutors and other Officers & Ministers of said Dartmouth College & also to pay all such Missionaries and Schoolmasters as shall be authorized appointed & employed by them for civilizing & christianizing & instructing the Indian Natives of this Land their several allowances & also their respective annual Salaries or allowances & all such necessary & contingent charges as from time to time shall arise & accrue relating to the said Dartmouth College And also to bargain sell let or assign Lands tenements or hereditaments goods, or chattels & all other things whatsoever by the name aforesaid in as full and ample a manner to all intents and purposes as a natural person or other body politick or corporate is able to do by the laws of our realm of Great Britain or of said province of New Hampshire And further of our special grace certain knowledge & mere motion to the intent that our said Corporation & body politick

[1] Subsequently amended so as to remove all limitations.

may answer the end of their erection & Constitution, & may have perpetual succession & continuance forever We do for us our heirs and Successors will give & grant unto the Trustees of Dartmouth College & to their Successors forever that there shall be once a year & every year a meeting of said Trustees held at said Dartmouth College at such time as by said Trustees or the major part of them at any legal meeting of said Trustees shall be agreed on the first meeting to be called by the said Eleazer Wheelock as soon as conveniently may be within one year next after the enrollment of these our Letters Patent at such time & place as he shall judge proper And the said Trustees or the major part of any seven or more of them shall then determine on the time for holding the annual Meeting aforesaid which may be alter'd as they shall hereafter find most convenient And we further order and direct that the said Eleazer Wheelock shall notify the time for holding said first meeting to be called as aforesaid by sending a letter to each of said Trustees & causing an advertizement thereof to be printed in the New Hampshire Gazette & in some publick News Paper printed in the Colony of Connecticut But in case of the Death or incapacity of the said Wheelock then such meeting to be notified in manner aforesaid by the Governor or Commander in Chief of our said Province for the time being And we do also for us our Heirs & successors hereby will give and grant unto the said Trustees of Dartmouth College aforesaid & to their Successors forever that when any seven or more of the said Trustees or their Successors are convened & met together for the service of said Dartmouth College at any time or times such seven or more shall be capable to act as fully & amply to all intents & purposes as if all the Trustees of said College were personally present — & all affairs & actions whatsoever under the care of the said Trustees shall be determined by the majority or greater number of those seven or more Trustees so convened & met together And we do further will ordain & direct that the President Trustees, Professors & Tutors & all such Officers as shall be appointed for the publick instruction & government of said College shall before they undertake the execution of their Offices or Trusts or within one year after take the Oaths & subscribe the declaration provided by an act of Parliament made in the first year of King George the first entitled "An act for the further security of his Majesty's Person & government & the succession of the Crown in the heirs of the late princess Sophia being Protestants, & for the extinguishing the hopes of the pretended Prince of Wales & his open & secret Abettors," that is to say the President before the Governor of our

said Province for the time being or by one by him impowered to that service or by the President of our said Council & the Trustees Professors Tutors & other Officers before the President of said College for the time being who is hereby impower'd to administer the same an entry of all which shall be made in the Records of said College. And we do for us our heirs & Successors hereby will give & grant full Power & Authority to the President hereafter by us named & to his Successors or in case of his failure to any three or more of the said Trustees to appoint other occasional meetings from time to time of the said seven Trustees or any greater number of them to transact any matter or thing necessary to be done before the next annual meeting and to order notice to the said seven or any greater number of them of the times & places of meeting for the service aforesaid by a letter under his or their hands of the same one month[1] before said meeting Provided always that no standing Rule or order be made or altered for the regulation of said College nor any President or Professor be chosen or displaced nor any other matter or thing transacted or done which shall continue in force after the then next annual meeting of said Trustees as aforesaid And further we do by these Presents for us our Heirs and Successors, create make constitute nominate & appoint our Trusty and well beloved ELEAZER WHEELOCK Doctor in Divinity the FOUNDER of said College to be PRESIDENT of said DARTMOUTH COLLEGE and to have the immediate care of Education & government of such Students as shall be admitted into said DARTMOUTH COLLEGE for instruction & education and do will give & grant to him in said Office full power authority & right to nominate appoint constitute & ordain by his last will such suitable & meet person or Persons as he shall chuse to succeed him in the Presidency of said Dartmouth College & the person so appointed by his last Will to continue in Office vested with all the powers priviledges Jurisdiction & authority of a President of said Dartmouth College that is to say so long and untill such appointment by said last Will shall be disapproved by the Trustees of said Dartmouth College And we do also for us our heirs and Successors will give & grant to the said Trustees of said Dartmouth College & to their Successors forever or any seven or more of them convened as aforesaid that in the case of the ceasing or failure of a President by any means whatsoever that the said Trustees do elect nominate & appoint SUCH qualified person as they or the major part of any seven or more of them convened for that purpose as

[1] Amended so that a legal meeting may be held at such time and upon such notice as may be prescribed by the rules of the Trustees.

above directed shall think fit to be PRESIDENT of said DARTMOUTH COLLEGE and to have the care of the Education & government of the Students as aforesaid & in case of the ceasing of a President as aforesaid the Senior Professor or Tutor being one of the Trustees shall exercise the Office of a President untill the Trustees shall make choice of & appoint a President as aforesaid & such Professor or Tutor or any three or more of the Trustees shall immediately appoint a meeting of the body of the Trustees for the purpose aforesaid AND also we do will give and grant to the said Trustees convened as aforesaid that they elect nominate & appoint so many Tutors and Professors to assist the President in the Education & government of the Students belonging thereto as they the said Trustees shall from time to time & at any time think needful & serviceable to the interests of said Dartmouth College And also that the said Trustees or their Successors or the major part of any seven or more of them convened for that purpose as above directed shall at any time displace & discharge from the service of said Dartmouth College any or all such Officers & elect others in their room & stead as before directed And also that the said Trustees or their successors or the major part of any seven of them which shall convene for that purpose as above directed do from time to time as occasion shall require elect constitute & appoint a TREASURER a CLERK an USHER & a Steward for the said DARTMOUTH COLLEGE & appoint to them & each of them their respective businesses & trusts & displace & discharge from the service of said College such Treasurer Clerk Usher or Steward & to elect others in their room & stead which Officers so elected as before directed We do for us our heirs & successors by these Presents constitute & establish in their respective Offices & do give to each & every of them full power & Authority to exercise the same in said Dartmouth College according to the directions & during the pleasure of the said Trustees as fully & freely as any like Officers in any of our Universities Colleges or Seminaries of learning in our Realm of Great Britain lawfully may or ought to do, & also that the said Trustees & their Successors or the major part of any seven or more of them which shall convene for that purpose as is above directed as often as one or more of said Trustees shall die or by removal or otherwise shall according to their judgement become unfit or incapable to serve the interests of said College do as soon as may be after the Death removal or such unfitness or incapacity of such Trustee or Trustees elect & appoint such Trustee or Trustees as shall supply the place of him or them so dying or becoming incapable to serve the

interests of said College & every Trustee so elected & appointed shall by virtue of these presents & such election & appointment be vested with all the Powers & priviledges which any of the other Trustees of said College are hereby vested with And we do further Will ordain & direct that from & after the expiration of Two years from the enrollment of these Presents such vacancy or vacancies as may or shall happen by death or otherwise in the aforesaid number of Trustees shall be filled up by election as aforesaid so that when such vacancies shall be filled up unto the complete number of TWELVE Trustees Eight[1] of the aforesaid whole number of the body of Trustees shall be resident and respectable Freeholders of our said Province of New Hampshire & seven of said whole number shall be Laymen And we do further of our special grace certain knowledge and mere motion will give and grant unto the said Trustees of Dartmouth College that they and their Successors or the major part of any seven of them which shall convene for that purpose as is above directed may make & they are hereby fully impowered from time to time fully & lawfully to make and establish such Ordinances Orders & Laws as may tend to the good & wholesome government of the said College & all the Students & the several Officers & Ministers thereof & to the publick benefit of the same not repugnant to the Laws & Statutes of our Realm of GREAT BRITAIN or of this our Province of NEW HAMPSHIRE and not excluding any Person of any religious denomination whatsoever from free & equal liberty & advantage of Education or from any of the liberties and privileges or immunities of the said College on account of his or their speculative sentiments in Religion, & of his or their being of a religious profession different from the said Trustees of the said Dartmouth College And such Ordinances orders & Laws which shall as aforesaid be made We do by these presents for us our heirs & Successors ratify allow of, & confirm as good & effectual to oblige & bind all the Students & the several Officers & Ministers of the said College And we do hereby authorize & impower the said Trustees of Dartmouth College & the President Tutors & Professors by them elected & appointed as aforesaid to put such ordinances laws and orders in execution to all proper intents and purposes And we do further of our special grace certain knowledge & mere motion Will give & grant unto the said Trustees of said Dartmouth College for the encouragement of Learning and animating the Students of said College to diligence & industry & a laudable progress in Literature that they & their

[1] Subsequently amended so as to read *seven*.

Successors or the major part of any seven or more of them convened for that purpose as above directed do by the President of said College for the time being or any other deputed by them give & grant any such degree or degrees to any of the Students of the said College or any others by them thought worthy thereof as are usually granted in either of the Universities or any other College in our Realm of Great Britain & that they sign & seal Diplomas or certificates of such Graduations to be kept by the Graduates as perpetual memorials & testimonials thereof. AND we do further of our special grace certain knowledge & mere motion for us our heirs & Successors by these Presents give & grant unto the Trustees of said Dartmouth College & to their Successors that they & their Successors shall have a common SEAL under which they may pass all Diplomas or Certificates of degrees & all other affairs & business of & concerning the said College which shall be engraven in such a form and with such an inscription as shall be devised by the said Trustees for the time being or by the major part of any seven or more of them convened for the service of the said College as is above directed And we do further for us our heirs & Successors give and grant unto the said Trustees of the said Dartmouth College & their Successors or to the major part of any seven or more of them convened for the service of the said College full power & Authority from time to time to nominate & appoint all other Officers & Ministers which they shall think convenient & necessary for the service of the said College not herein particularly named or mention'd which Officers & Ministers we do hereby impower to execute their Offices & Trusts as fully & freely as any of the Officers & Ministers in our Universities or Colleges in our REALM of GREAT BRITAIN lawfully may or ought to do. AND further that the generous Contributors to the support of this design of spreading the knowledge of the only true God and Saviour among the American Savages may from time to time be satisfied that their liberalities are faithfully disposed of in the best manner for that purpose & that others may in future time be encouraged in the exercise of the like liberality for promoting the same pious design it shall be the duty of the President of the said Dartmouth College & of his Successors annually or as often as he shall be thereunto desired or required to transmit to the Right honorable, honorable & worthy Gentlemen of the Trust in England before mentioned a faithful account of the improvement & disbursements of the several Sums he shall receive from the Donations & bequests made in England through the hands of said Trustees & also advise them of the general plans

laid and prospects exhibited as well as a faithful account of all remarkable occurrences in order if they shall think expedient that they may be published And this to continue so long as they shall perpetuate their board of Trust & there shall be any of the Indian Natives remaining to be proper Objects of that Charity AND lastly our express Will & pleasure is and we do by these presents for us our heirs and Successors give & grant unto the said Trustees of Dartmouth College & to their Successors forever that these our Letters Patent or the enrollment thereof in the SECRETARY'S Office of our Province of New Hampshire aforesaid shall be good & effectual in the Law to all intents & purposes against us our heirs and Successors without any other License Grant or Confirmation from us our heirs & successors hereafter by the said Trustees to be had & obtained notwithstanding the not writing or misrecital not naming or misnaming the aforesaid Offices Franchises Priviledges Immunities or other the Premises or any of them and notwithstanding a writ of Ad quod Damnum hath not issued forth to enquire of the Premises or any of them before the ensealing hereof any Statute Act Ordinance or Provision or any other matter or thing to the contrary notwithstanding TO HAVE AND TO HOLD ALL & singular the Privileges Advantages Liberties Immunities and all other the Premises herein & hereby granted & given or which are meant mentioned or intended to be herein & hereby given and granted unto them the said TRUSTEES of DARTMOUTH COLLEGE and to their Successors forever. IN TESTIMONY whereof We have caused these our Letters to be made Patent and the publick Seal of our said Province of NEW HAMPSHIRE to be hereunto affixed WITNESS our Trusty and well beloved JOHN WENTWORTH Esquire Governor and Commander in Chief in and over our said Province &c^{a}. this THIRTEENTH day of December in the Tenth year of our Reign and in the year of our Lord one thousand seven hundred and Sixty nine.

By his Excellency's Command
with advice of Council

THEODORE ATKINSON, Sec'y

Province of New Hampshire Decemb^{r} 18th 1769.
Recorded in the book of Charters
Lib: 4° Fol. 22 to 23 both inclusive.

Per

THEODORE ATKINSON, SEC'Y

JOHN WENTWORTH.

HISTORICAL NOTE

DARTMOUTH COLLEGE is the outgrowth of a school which the Reverend Eleazer Wheelock opened in his home at Lebanon, Conn., December 18, 1754, for the Christian education of Indian youth. The school was known as Moor's Indian Charity School, so named from Joshua Moor, who contributed a house and two acres of land.

Funds for the maintenance of the school were received from various sources, — from private individuals, from the General Courts of Massachusetts Bay and of New Hampshire, and from Great Britain, where the enterprise had awakened the deepest interest. From the latter source an endowment was secured, chiefly through the efforts of Samsom Occom, the Indian preacher, one of Dr. Wheelock's students, who was commissioned to make a tour of England and Scotland for this purpose in 1765. The sum of ten thousand pounds was thus raised, and committed to the charge of a board of trustees with the Earl of Dartmouth at its head. As the result of this endowment it was determined by Dr. Wheelock to enlarge the purpose of the school especially to reach "a greater proportion of English youth," and to change its location. Various proposals for a site were made, but after careful investigation the site chosen was the township of Hanover, in the region of Cowas or Coös, in the province of New Hampshire. Apart from the nearness of this site to the Canadian Indians, the determining reason for the choice seems to have been the attractiveness of the location, and the fact that it was the natural center of "more than two hundred towns, chartered, settled, or about to be settled." Removal to the Province of New Hampshire also gave the assurance of a charter, which it had thus far been difficult to obtain.

The draft of the charter prepared by Dr. Wheelock received important modifications from the Governor of the Province, John Wentworth. In particular he rejected the suggestion of a coördinate board of trustees in Great Britain; he gave to the college the name of Lord Dartmouth, its most active patron in Great Britain, although Wheelock had proposed to the Governor to call it by the name of Wentworth; and instead of incorporating it as a "school" or "academy," he

adopted a hint from Wheelock's postscript and made it a "college." The first board of trustees consisted of the Governor with three of his council, the speaker of the New Hampshire House of Representatives, one member of the Connecticut Colonial government, and six Connecticut clergymen selected by Dr. Wheelock.

Dr. Wheelock was elected president of the college, with Mr. Bezaleel Woodward, a graduate of Yale in 1764, as his associate. The first class of four students was graduated in 1771, the Commencement being attended by the Governor of the Province of New Hampshire and a company of gentlemen from Portsmouth, who made their way in part through almost trackless forests.

Two events in the early history of the college materially affected its character and growth. First, the gradual withdrawal of the support of its patrons in Great Britain, whose interest lay chiefly in the education of Indians; second, the lawsuit between the college and the state of New Hampshire for the control of the college, which resulted in a final decision by the Supreme Court of the United States in favor of the Trustees of Dartmouth College. The decision in "The Dartmouth College Case" was rendered in February, 1819. Since the reëstablishment of the college by this decision, its history has followed the general course of educational progress in New England.

Other institutions have from time to time been associated with or incorporated into the college.

Moor's Indian Charity School was made an independent institution when the college was founded. The school was maintained as late as 1849. It still has a legal existence with the title — "The President of Moor's Charity School." The trustees are the same in person with those of the college, though forming a separate corporation.

The Dartmouth Medical School dates from the establishment in 1798 of a professorship of medicine in the college, first filled by Dr. Nathan Smith, who was instrumental in its establishment. The school is under the general control of the Trustees of Dartmouth College, by which body degrees are conferred, but the management of its affairs is committed to the Medical Faculty. Associated with the Medical College is the Mary Hitchcock Hospital (1893), the memorial gift of Hiram Hitchcock, Esq., of Hanover.

The Chandler School of Science and the Arts, established in 1851 by a resolution of the trustees, in acceptance of a sum bequeathed to them in trust by Abiel Chandler, Esq., "for the establishment and support of a permanent department or school of instruction in the col-

lege, in the practical and useful arts of life," was more formally incorporated into the College by the joint action of the Trustees of the College and the Visitors of the Chandler School in 1893, and is now known as the Chandler Scientific Course in the College, leading to the degree of B.S.

The Thayer School of Civil Engineering, established in 1867 by the bequest of General Sylvanus Thayer, Class of 1807, is essentially a graduate school, covering a course of two years, and conferring the degree of Civil Engineer. The funds of the School are in charge of the Trustees of the College; otherwise its affairs are managed by a board of overseers, which is a close corporation.

The Amos Tuck School of Administration and Finance, established in 1900 by Mr. Edward Tuck, Class of 1862, as a memorial to his father, Honorable Amos Tuck, Class of 1835, a Trustee of the College, 1857 to 1866, is also a graduate school covering a course of two years. It is the object of the School to train college graduates who desire to engage in affairs rather than to enter the professions. The School is administered by the Trustees of the College.

The presidency of the college has been held as follows:

Eleazer Wheelock, 1769–1779.
John Wheelock, 1779–1815.
Francis Brown, 1815–1820.
Daniel Dana, 1820–1821.
Bennett Tyler, 1821–1828.
Nathan Lord, 1828–1863.
Asa Dodge Smith, 1863–1877.
Samuel Colcord Bartlett, 1877–1892.
William Jewett Tucker, 1893–.

DARTMOUTH COLLEGE

TRUSTEES OF DARTMOUTH COLLEGE

AND OF MOOR'S CHARITY SCHOOL

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.
HIS EXCELLENCY NAHUM JOSIAH BACHELDER, A.M.
(ex officio) . . . . . *Andover, N. H.*
HENRY FAIRBANKS, PH.D. . . . . *St. Johnsbury, Vt.*
WILLIAM MARTIN CHASE, LL.D. . . . *Concord, N. H.*
CYRUS RICHARDSON, D.D. . . . . *Nashua, N. H.*
FRANK SHERWIN STREETER, A.B. . . *Concord, N. H.*
CHARLES FREDERICK MATHEWSON, LL.B.
New York, N. Y.
EDWARD DANA REDINGTON, A.M. . . . *Chicago, Ill.*
BENJAMIN AMES KIMBALL, B.S. . . . *Concord, N. H.*
JOHN ROBIE EASTMAN, PH.D. . . . . *Andover, N. H.*
WILLIAM HENRY DAVIS, D.D. . . . . *Newton, Mass.*
MELVIN OHIO ADAMS, A.M. . . . . *Boston, Mass.*

TREASURER

CHARLES PARKER CHASE, A.M. . . . *Hanover, N. H.*

EX OFFICIO TRUSTEES OF THE COLLEGE IN RELATION TO FUNDS GIVEN BY THE STATE OF NEW HAMPSHIRE

COUNCILLORS

HON. J. FRANK SEAVEY . . . . . *Dover, N. H.*
HON. ALFRED A. COLLINS . . . . . *Danville, N. H.*
HON. FRANK E. KALEY . . . . . *Milford, N. H.*
HON. SETH M. RICHARDS . . . . . *Newport, N. H.*
HON. A. CROSBY KENNETT . . . . . *Conway, N. H.*

THE PRESIDENT OF THE SENATE

HON. CHARLES W. HOITT . . . . . *Nashua, N. H.*

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

HON. HARRY M. CHENEY . . . . . *Lebanon, N. H.*

THE CHIEF JUSTICE OF THE SUPREME COURT

HON. FRANK N. PARSONS . . . . . *Franklin, N. H.*

VISITORS ON THE CHANDLER FOUNDATION

DAVID HERBERT ANDREWS, B.S. . . . . *Newton Centre, Mass.*
ROBERT GORDON PIKE, B.S. . . . . *Dover, N. H.*

STANDING COMMITTEES OF THE TRUSTEES

COMMITTEE ON FINANCE,
Messrs. Kimball, Chase, Mathewson, Streeter, Adams.

ON INSTRUCTION,
Messrs. Richardson, Fairbanks, Redington, Eastman, Davis.

ON EQUIPMENT,
Messrs. Fairbanks, Eastman, Redington.

ON BUILDINGS AND IMPROVEMENTS,
Messrs. Streeter, Kimball, Mathewson, Davis, Adams.

ON DEGREES,
Messrs. Mathewson, Eastman, Davis.

ON RELATION OF COLLEGE TO STATE,
Messrs. Streeter, Richardson, Eastman.

ON RELATION OF COLLEGE TO ALUMNI,
Messrs. Redington, Mathewson, Adams.

ON LEGAL MATTERS,
Messrs. Chase, Streeter, Mathewson.

The President of the College is a member *ex officio* of the Committee on Finance, on Instruction, on Equipment, on Buildings and Improvements, and on Degrees.

THE COLLEGE ADMINISTRATION

PRESIDENT — William Jewett Tucker — Administration Building, 10 A.M. to 12 M., each week day.

ACTING PRESIDENT — John King Lord.

TREASURER — Charles Parker Chase — Bank Building, 9.30 to 11.30 A.M., 1.30 to 2.30 P.M., each week day.

SECRETARY TO THE PRESIDENT — Ernest Martin Hopkins — Administration Building, 9 A.M. to 12 M., each week day, 1.30 to 3.00 P.M., each week day except Saturday.

DEAN OF ACADEMIC FACULTY — Charles Franklin Emerson — Administration Building, 9.30 to 11.30 A.M., each week day.

REGISTRAR — Howard Murray Tibbetts — Administration Building, 9.30 to 10.30 A.M., each week day, 1.30 to 2.30 P.M., each week day except Saturday.

DIRECTOR OF DEPARTMENT OF PEDAGOGY — Franklin Crocker Lewis — Chandler Hall.

CHAIRMAN OF COMMITTEE ON GRADUATE INSTRUCTION — Charles Darwin Adams — 1 N. Park St.

LIBRARIAN — Marvin Davis Bisbee — Wilson Hall, 9 to 12 A.M., 1 to 5 P.M., each week day.

MEDICAL DIRECTOR — Howard Nelson Kingsford — Bank Building, 7 to 8 P.M., Tuesdays and Thursdays; other week days 4.30 to 6 P.M.

SUPERINTENDENT OF BUILDINGS — Edgar Hayes Hunter — Administration Building, 8 to 9 A.M., 11.30 A.M. to 12 M., each week day, 5 to 6 P.M., each week day except Saturday.

SECRETARY OF COLLEGE CLUB — Henry Nelson Teague — College Hall, 7.15 A.M. to 7.00 P.M., each week day.

OFFICERS OF ADMINISTRATION AND INSTRUCTION[1]

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT. 43 College St.

JOHN KING LORD, PH.D., ACTING PRESIDENT *of the Faculty in the absence of the President.* 37 College St.

CHARLES FRANKLIN EMERSON, A.M., DEAN *of the Academic Faculty.* 13 Webster Ave.

CHARLES HENRY HITCHCOCK, PH.D., LL.D., *Hall Professor of Geology and Curator of Butterfield Museum.* 15 E. Wheelock St.

GABRIEL CAMPBELL, M.PD., D.D. *Stone Professor of Intellectual and Moral Philosophy.* 29 N. Main St.

JOHN KING LORD, PH.D., *Daniel Webster Professor of the Latin Language and Literature.* 37 College St.

FRANK ASBURY SHERMAN, M.S., *Professor of Mathematics on the Chandler Foundation.* 37 N. Main St.

CHARLES FRANCIS RICHARDSON, PH.D., *Winkley Professor of the English Language and Literature.* 6 School St.

MARVIN DAVIS BISBEE, B.D., *Librarian and Professor of Bibliography.* 11 W. Wheelock St.

THOMAS WILSON DORR WORTHEN, A.M., *Cheney Professor of Mathematics.* 11 Webster Ave.

EDWIN JULIUS BARTLETT, A.M., M.D., *New Hampshire Professor of Chemistry.* 8 W. Wheelock St.

JAMES FAIRBANKS COLBY, A.M., LL.D., *Parker Professor of Law and Political Science.* 2 Elm St.

[1] Arranged, with the exception of the President, Acting President, and Dean, according to Academic Seniority.

JOHN VOSE HAZEN, C.E., *Woodman Professor of Civil Engineering and Graphics on the Chandler Foundation.*
33 N. Main St.

CHARLES DARWIN ADAMS, PH.D., *Lawrence Professor of the Greek Language and Literature.* 1 N. Park St.

JUSTIN HARVEY SMITH, A.M., *Professor of Modern History.*
The Hanover Inn.
(On leave of absence for second semester.)

CHARLES HENRY MORSE, MUS. BAC., *Musical Director.*
The Hanover Inn.

DAVID COLLIN WELLS, A.B., *Professor of Sociology.*
20 N. Main St.

ROBERT LONGLEY TAYLOR, PH.D., *Assistant Professor of French.* 30 N. Main St.

WILLIAM PATTEN, PH.D., *Professor of Biology* (*Zoölogy*).
15 Webster Ave.

GEORGE DANA LORD, A.M., *Associate Professor of Greek and of Greek Archæology.* The Hanover Inn.

HERBERT DARLING FOSTER, A.M., *Professor of History.*
9 Webster Ave.

FRANK GARDNER MOORE, PH.D., *Associate Professor of Latin and of Roman Archæology.* 1 Occom Ridge.

WARREN AUSTIN ADAMS, PH.D., *Professor of German.*
16 Occom Ridge.

FRED PARKER EMERY, A.M., *Willard Professor of Rhetoric and Oratory.*
(On leave of absence for one year.)

LOUIS HENRY DOW, A.M., *Professor of French.* 2 Occom Ridge.

HARRY EDWIN BURTON, PH.D., *Professor of Latin.*
5 Occom Ridge.

JOHN HIRAM GEROULD, PH.D., *Instructor in Zoölogy.*
8 W. South St.

GEORGE RAY WICKER, PH.D., *Assistant Professor of Economics.*
20 Occom Ridge.

AMBROSE WHITE VERNON, A.M., *Professor of Biblical Literature on the Phillips Foundation.* 10 School St.

FRANK HAIGH DIXON, PH.D., *Professor of Economics.*
24 Occom Ridge.

GORDON FERRIE HULL, PH. D., *Appleton Professor of Physics.* 4 W. Wheelock St.

CHARLES HENRY RICHARDSON, PH.D., *Instructor in Mineralogy and Geology.* 4 College St.

ERNEST FELIX LANGLEY, A.M., *Assistant Professor of the Romance Languages (French and Italian).* 27 E. Wheelock St.

ASHLEY KINGSLEY HARDY, PH.D., *Assistant Professor of German and Instructor in Old English.* 38 N. Main St.

GEORGE RICHARD LYMAN, A. M., *Assistant Professor of Biology (Botany).* 30 N. Main St.

ALLYN ABBOTT YOUNG, PH.D., *Assistant Professor of Finance.* 38 N. Main St.

HERMAN HARRELL HORNE, PH.D., *Assistant Professor of Philosophy and Pedagogy.* 5 N. Park St.

RICHARD WELLINGTON HUSBAND, A.M., *Assistant Professor of Greek and of Classical Philology.* 9 N. Park St.

CHARLES ARTHUR HOLDEN, C.E., *Assistant Professor of Mathematics.* 30 N. Main St.

NORMAN EVERETT GILBERT, PH.D., *Assistant Professor of Physics.* 4 W. Wheelock St.

CRAVEN LAYCOCK, A.B., *Assistant Professor of Oratory on the Evans Foundation.* 18 Occom Ridge.

SIDNEY BRADSHAW FAY, PH.D., *Assistant Professor of History.* 30 N. Main St.

PRESCOTT ORDE SKINNER, A.M., *Instructor in the Romance Languages (French and Spanish).* 24 N. Main St.

CHESTER NATHAN GOULD, A.M., *Instructor in German.* 4 W. Wheelock St.

WILLIAM KILBORNE STEWART, A.M., *Instructor in German.*

(On leave of absence for one year.)

CHARLES ERNEST BOLSER, PH.D., *Instructor in Chemistry.* 15 E. Wheelock St.

JOHN MERRILL POOR, PH.D., *Instructor in Astronomy.* 20 N. Main St.

GEORGE BENSON WESTON, A.M., *Instructor in the Romance Languages (French and Spanish).* 36 N. Main St.

HARLOW STAFFORD PERSON, PH.D., *Assistant Professor of Commerce and Industry.* 15 N. Park St.

KAN-ICHI ASAKAWA, PH.D., *Lecturer on The Far East.* 20 Occom Ridge.

ANDREW LEROY ANDREWS, A.M., *Instructor in German.* 4 W. Wheelock St.

HENRY ROBINSON SHIPMAN, PH.D., *Instructor in History.* 38 N. Main St.

HOMER EATON KEYES, B.L., *Instructor in English.* (On leave of absence.)

FRANKLIN CROCKER LEWIS, A.M., *Instructor in Pedagogy.* 35 N. Main St.

LEON BURR RICHARDSON, A.M., *Instructor in Chemistry.* (On leave of absence for one year).

HAROLD MARTIN BOWMAN, LL.B., PH.D., *Assistant Professor of Political Science.* 4 W. Wheelock St.

HENRY NICHOLS SANBORN, A.M., *Instructor in English.* 15 N. Park St.

LAWRENCE CHAMBERLAIN, A.M., *Instructor in English.* 4 W. Wheelock St.

HERMAN WALDO FARWELL, A.B., *Instructor in Physics.* W Wilder Hall.

RALPH MARTIN BARTON, A.B., *Instructor in Mathematics.* 25 N. Main St.

HERBERT McKENNIS, A.B., *Instructor in English.* 4 Wentworth St.

CARL FRED WOODS, B.S., *Instructor in Chemistry.* 41 S. Main St.

ETTA MATTOCKS NEWELL, *Assistant Librarian.* The Hanover Inn.

HOWARD NELSON KINGSFORD, M.D., *Medical Director.* 14 Occom Ridge.

JOHN WILLIAM BOWLER, *Instructor in Physical Culture and Director of the Gymnasium.* 22 Occom Ridge.

FREDERICK WARREN JENKINS, A.B., *Superintendent of Reference Rooms.* The Hanover Inn.

HOWARD MURRAY TIBBETTS, A.B., *Registrar.*
4 Wentworth St.

HENRY NELSON TEAGUE, M.C.S., *Secretary of the College Club and Comptroller of the Dining Association.* 14 College Hall.

ARTHUR PERRY FAIRFIELD, A.B., *Manager of The College Inn.* The Hanover Inn.

ERNEST MARTIN HOPKINS, A.B., *Secretary to the President.*
4 Wentworth St.

EDGAR HAYES HUNTER, C.E., *Superintendent of Buildings.*
1 Elm St.

AZRO KARL SKINNER, A.B., *Secretary of the Young Men's Christian Association.* W Wilder Hall.

LEON WINFIELD WEBSTER, A. B., *Assistant in the Dean's Office.* 4 Wentworth St.

STANDING COMMITTEES OF THE FACULTY

ADMINISTRATION — The President, the Acting President, the Dean, Professor Richardson (Senior class-officer), Professor Hull (Junior class-officer), Professor Laycock (Sophomore class-officer), Professor Burton (Freshman class-officer).

ADMISSION — Professors Sherman (chairman), G. D. Lord, Foster, Dow, Hardy, Lyman, Mr. Lewis, the Dean (ex officio).

INSTRUCTION — Professors Moore (chairman), Worthen, Wells, Langley, Hardy, Holden, Dr. Gerould, the Dean (ex officio).

LIBRARY — Professors Richardson (chairman), Hitchcock, Moore, Bisbee, Husband, Fay, Mr. Skinner.

ATHLETICS — Professors Bartlett (chairman), Patten, Dr. Bolser.

ORGANIZATIONS OTHER THAN ATHLETIC — Professors Dixon (chairman), W. A. Adams, Wicker.

COLLEGE HALL — Professor Dixon (chairman), Dr. Poor, Mr. Sanborn.

GRADUATE INSTRUCTION — Professors C. D. Adams (chairman), Campbell, Taylor, Hull, Husband, Mr. Lewis.

MEMBER OF DINING HALL COMMITTEE — Mr. Sanborn.

STUDENTS

FELLOW

Haney, Lewis Henry, A. B. 1903, *Madison, Wis.*

GRADUATE STUDENTS

Andrews, John Bertram — *South Wayne, Wis.* — 2 Elm St.
A.B. Univ. of Wisconsin, 1904. Economics.

Bridgham, John Merrill — *Dexter, Me.* — 23 N. Main St.
A.B. Bowdoin, 1904. Latin, Pedagogy, German.

Brown, Charles Guy — *Livermore Falls, Me.* — 25 N. Main St.
A.B. Wesleyan, 1904. Mathematics, Pedagogy, Astronomy.

Chase, Harry Woodburn — *Groveland, Mass.* — 1. S. Park St.
A.B. 1904. Philosophy.

Farwell, Herman Waldo — *Weymouth, Mass.* — W Wilder Hall
A.B. 1902. Physics.

Favor, Paul Gordon — *Lowell, Mass.* — X Φ House
A.B. 1904. Philosophy, Pedagogy, Greek.

Griggs, Leland — *Hanover, N. H.* — 9 Pleasant St.
A.B. 1902. Biology: *Assistant in Laboratory.*

Kidger, Horace — *Everett, Mass.* — 4 Wentworth St.
A.B. 1903. History: *Assistant.*

Lambert, Avery Eldorus — *Hanover, N. H.* — 1 S. Park St.
B.S. 1902. Biology: *Assistant in Laboratory.*

Nutt, Harry Garfield — *Worcester, Mass.* — The Newton Inn
B.S. 1904. Sociology.

Smith, Harold Elno — *Lebanon, N. H.* — V Wilder Hall
A.B. 1903. Physics: *Assistant in Laboratory.*

Spofford, Albion Keith — *South Paris, Me.* — 13 Lebanon St.
A.B. Bates, 1904. Pedagogy, English.

Taylor, Thomas Francis — *Bangor, Me.* — 25 S. Main St.
A.B. Univ. of Maine, 1904. Latin, Pedagogy, French.

Woodbury, William Billings — *Hanover, N. H.* — 35 N. Main St.
A.B. Bowdoin, 1900. Latin.

NON-RESIDENT GRADUATE STUDENTS

Carley, Neale Severance — *Barre, Vt.*
A.B. 1902. Greek, German.

Clark, Eugene Francis — *Auburndale, Mass.*
A.B. 1901. History.

Doring, Frederick William — *Concord, N. H.*
A.B. 1883. History.

Ford, William Hayden — *Philadelphia, Penn.*
B.S. 1894. Economics.

Gentleman, Frederick William — *Portsmouth, N. H.*
A.B. 1901. Mathematics.

Goodhue, Everett Walton — *Boston, Mass.*
A.B. 1900. Sociology.

Heald, Franklin Ernest — *Ludlow, Vt.*
B.S. 1897. Pedagogy.

Hyatt, Willard Isaac — *Wayland, Mass.*
A.B. 1899. History.

Jackson, Andrew — *Lyndonville, Vt.*
A.B. 1903. History.

Moore, Frank Cochrane — *Concord, N. H.*
A.B. 1902. Latin.

Moulton, Arthur Bertram — *Northampton, Mass.*
A.B. 1896. Psychology, Sociology.

Phillips, John Lewis — *Andover, Mass.*
A.B. 1894. Latin.

Roberts, Arthur Stanley — *Newport, R. I.*
A.B. 1900. Greek.

Smith, James Francis — *Lyndonville, Vt.*
A.B. 1903. History.

White, Carroll Henry — *South Walden, Vt.*
B.S. 1896. Philosophy.

UNDERGRADUATES

SENIORS

Name	Residence	Room
Adams, James Seth	*Biddeford, Me.*	25 S. Main St.
Agry, George Cram	*Newton, Mass.*	C. and G. House
Archibald, Cecil	*Brockton, Mass.*	8 Hubbard
Ashworth, John Edward	*Lebanon, N. H.*	6 W. Wheelock St.
Atwood, Howard Deloz	*New Boston, N. H.*	22 Richardson
Balph, Rowland Pollock	*Wilkinsburg, Penn.*	8 Hubbard
Barney, Winfield Supply	*Washington, N. H.*	9 S. Park St.
Barton, Clarence LeRoy	*Marlboro, Mass.*	Χ Φ House

Name	Residence	Room
Batchellor, Stillman	*Littleton, N. H.*	Dragon House
Bedell, Irving Washington	*Somersworth, N. H.*	Β Θ Π House
Billman, Howard Dwight	*Dayton, Ohio.*	37 Fayerweather
Blatner, William Davis	*Albany, N. Y.*	8 Hubbard
Brockway, John	*West Hartford, Vt.*	Β Θ Π House
Brooks, Charles Adams	*Claremont, N. H.*	21 Thornton
Brown, Dana Francis	*Fall River, Mass.*	Dragon House
Brown, Frederick Howard	*West Boylston, Mass.*	Δ Τ Δ House
Brown, Roger Whittemore	*Concord, Mass.*	2 College
Campbell, William James	*Summerside, P. E. I.*	8 Lebanon St.
Card, Elmer Whittier	*Dover, N. H.*	15 Wentworth
Chamberlain, Frank Theron	*Sandy Creek, N. Y.*	6 W. Wheelock St.
Chamberlain, William Edward	*Medford, Mass.*	C. and G. House
Chamberlin, Lafayette Ray	*Berlin, N. H.*	Dragon House
Chase, Frederick	*Hanover, N. H.*	38 College St.
Chisholm, Everett Allen	*Manchester, N. H.*	23 Thornton
Clow, Arlington Ingalls	*Orange, Mass.*	5 College St.
Collins, Ralph Waldo	*Kingston, N. H.*	17 Thornton
Colson, George Ralph	*North Billerica, Mass.*	9 S. Park St.
Conley, Walter Abbott	*Portland, Me.*	C. and G. House
Cornish, Solon Washington	*Carver, Mass.*	10 Elm
Cunningham, Shirley Beck	*Wellesley Hills, Mass.*	2 College
Day, Edmund Ezra	*Worcester, Mass.*	C. and G. House
Dennison, Harry Garfield	*Somersworth, N. H.*	9 Sanborn
Donnelly, James Corcoran	*Worcester, Mass.*	27 Reed
Dorothy, Wayland Francis	*Enfield, N. H.*	25 College
Dunlap, John Hoffman	*East Concord, N. H.*	20 S. Main St.
Dunn, Herbert Randall	*Woonsocket, R. I.*	9 Sanborn
Eichenauer, Charles Frederick	*Quincy, Ill.*	17 S. Main St.
Ela, Arthur John	*Lebanon, N. H.*	17 Thornton
Elliott, Herford Naylor	*Lowell, Mass.*	27 Richardson
Emery, Walter Palmer	*Auburn, N. H.*	Φ Δ Θ House
English, Frank	*Wareham, Mass.*	6 Reed
Estes, Charles Edward	*Somersworth, N. H.*	Δ Τ Δ House
Falconer, Robert Crawford	*Hamilton, O.*	4 Proctor
Fall, Gilbert Haven	*Somersworth, N. H.*	Χ Φ House
Fleming, Harris Willard	*Natick, Mass.*	Dragon House
French, Robert Allan	*Nashua, N. H.*	29 Richardson
Fromm, Nelson Kaufman	*Albany, N. Y.*	20 Fayerweather
Frost, Eliot Park	*Hudson, Mass.*	17 S. Main St.
Furfey, John Hugh	*Brookline, Mass.*	23 Thornton
Gage, Daniel Nathan	*Andover, Mass.*	C. and G. House
Gates, Don Shepard	*Bakersfield, Vt.*	20 S. Main St.
Getchell, Carl Folsom	*Monmouth, Me.*	20 Richardson
Gilbert, Edgar	*Lawrence, Mass.*	8 Thornton
Gilbert, Oscar Bowen	*Woonsocket, R. I.*	19 Richardson

Name	Residence	Room
Goodrich, Charles Francis	*Dorchester, Mass.*	1 S. Park St.
Graves, Allen Bouthrod	*Lynchburg, Va.*	11 Elm
Hale, Fletcher	*Dorchester, Mass.*	X Φ House
Ham, Harry Howard	*Dorchester, Mass.*	3 College St.
Harding, Robert Hatch	*Newcastle, N. H.*	23 Richardson
Harwood, Fred Eugene	*Athol Centre, Mas*	Δ T Δ House
Haskell, Harold Morton	*Claremont, N. H.*	1 S. Park St.
Hatch, Fletcher Ames	*Hanover, Mass.*	23 Reed
Hawley, Walter Earl	*Norwich, Vt.*	17 S. Main St.
Hersam, George Alexander	*Stoneham, Mass.*	14 Sanborn
Hill, Louis William	*Bridgeport, Conn.*	17 Richardson
Hills, Clarence Clare	*Columbus, O.*	16 Fayerweather
Hobart, Henry Morgan	*Brooklyn, N. Y.*	21 Thornton
Hodgman, Charles David	*Milford, N. H.*	23 Hallgarten
Holton, Ray Clifford	*Chicago, Ill.*	8 Hubbard
Kelley, Carl Hall	*Haverhill, Mass.*	25 S. Main St.
Kelley, Charles Jenkins	*Harwichport, Mass.*	5 Proctor
King, Harold Davis	*West Farmington, Me.*	10 W. South St.
Kingsbury, Joseph Lyman	*Clifton Springs, N. Y.*	15 Wentworth
Knibbs, John William, Jr.	*Worcester, Mass.*	C. and G. House
Knight, Howard Vivian	*Dorchester, Mass.*	8 Proctor
Ladd, Percy Chandler	*Greenfield, Mass.*	5 Hallgarten
Laing, John Albert	*Albany, N. Y.*	Δ T Δ House
Lane, Harold Francis	*Chicago, Ill.*	X Φ House
Libby, Ralph Leonard	*Dover, N. H.*	W. South St.
Lill, Harry Alfred	*Mt. Hope, Kan.*	36 Fayerweather
Lillard, Walter Huston	*St. Louis, Mo.*	1 Sanborn
Loder, Halsey Beach	*Thetford, Vt.*	Φ Δ Θ House
Luce, Thomas Dunham, Jr.	*Nashua, N. H.*	22 Sanborn
McCabe, Frank Joseph	*Randolph, Mass.*	C. and G. House
McClary, Arthur Eugene	*Malone, N. Y.*	K K K House
McFeeters, William Renssellaer	*Enosburg Falls, Vt.*	Φ Δ Θ House
MacLean, Hugh Whitford	*Evanston, Ill.*	24 Richardson
MacMillan, Andrew Louis, Jr.	*Hanover, Mass.*	2 Sanborn
May, Walter Milton	*West Concord, Vt.*	1 College
Maynard, Alexander Rockwood	*Nashua, N. H.*	8 Hubbard
Melvin, Albert Thomas	*Derry, N. H.*	Δ T Δ House
Merriam, James Robert	*Niagara Falls, N. Y.*	12 College
Merrill, Joseph Henry	*Danvers, Mass.*	Davison Block
Messer, Hope Richard	*Claremont, N. H.*	1 S. Park St.
Moore, Chester Newell	*Worcester, Mass.*	24 College
Mulally, James Henry	*Dauversport, Mass.*	26 Sanborn
Murphy, Francis Joseph	*Somerville, Mass.*	5 W. South St.
Musgrove, Eugene Richard	*Bristol, N. H.*	17 S. Main St.
Neely, John Hinsdale	*Evanston, Ill.*	9 Fayerweather
Newdick, Edwin Walter	*Arlington, Mass.*	Dragon House

Name	Residence	Room
Norton, Henry Kittredge	*Chicago, Ill.*	Dragon House
Nourse, Walter Lorenzo	*Hudson, Mass.*	17 S. Main St.
Orcutt, Leslie Warren	*Winthrop, Mass.*	4 Sanborn
Parkinson, Royal	*Waltham, Mass.*	27 College
Peirce, Joshua Winslow	*Portsmouth, N. H.*	30 Richardson
Pelletier, Alexis Desire	*Cacouna, P. Q.*	43 S. Main St.
Peyser, Harry Wentworth	*Portsmouth, N. H.*	Β Θ Π House
Pierce, Clifford Wellington	*Lexington, Mass.*	20 Sanborn
Platt, Theodorus Badger	*Poultney, Vt.*	17 S. Main St.
Post, John Dwight	*Torrington, Conn.*	Φ Δ Θ House
Post, John Ransom	*Jacksonville, Ill.*	Χ Φ House
Preston, Harry Boynton	*Henniker, N. H.*	14 Sanborn
Putnam, George William	*Nashua, N. H.*	23 Hallgarten
Reeve, Ralph Walker	*Somersworth, N. H.*	Dragon House
Reid, George Stickle	*Newton, Mass.*	C. and G. House
Richardson, Edward Curtis	*Dover, N. H.*	1 Proctor
Ricker, George Roscoe	*Biddeford, Me.*	23 N. Main St.
Ripley, John Barrett	*Troy, N. H.*	10 Richardson
Rix, John Burton	*Utica, N. Y.*	3 College St.
Rogers, Walter Mulliken	*Quincy, N. H.*	1 Bartlett
Root, Raymond Richmond	*Georgetown, Mass.*	2 Fayerweather
Russell, Verney Warren	*Norwich, Vt.*	9 S. Park St.
Sibley, Edward Napoleon	*Ashburnham, Mass.*	17 Thornton
Small, Walter Blaisdell	*Providence, R. I.*	13 Richardson
Small, Walter Garfield	*Whitefield, N. H.*	8 College
Smith, Allen Copeland	*Lexington, Mass.*	20 Sanborn
Smith, Chester Philbrook	*Norridgewock, Me.*	25 Lebanon St.
Smith, Leon Burdett	*West Derry, N. H.*	1 S. Park St.
Stone, James Hammond	*Dunbarton, N. H.*	36 N. Main St.
Stuart, Irving Wesley	*Lunenburg, Vt.*	8 Lebanon St.
Studwell, Lester Wellington	*Port Chester, N. Y.*	Dragon House
Sylvester, Charles Bradford	*Groveland, Mass.*	32 Reed
Tuck, John	*Sharon, Mass.*	C. and G. House
Uniac, Thomas Vincent	*Randolph, Mass.*	4 Sanborn
Vaughan, James Albert	*Woodfords, Me.*	C. and G. House
Wallace, Joseph Ambrose	*Medway, Mass.*	21 School St.
Wallis, Louis Theodore	*Jamaica Plain, Mass.*	2 Sanborn
Watson, Harry Lyman	*Manchester, N. H.*	29 Reed
Weston, Charles Joseph	*Windsor, Vt.*	1 S. Park St.
Weston, Frederick Sampson	*Middleboro, Mass.*	21 Hallgarten
White, Ernest Miller	*Portland, Me.*	8 Hubbard
Whittier, John Boland	*Portland, Me.*	41 S. Main St.
Wilkins, Samuel Henry, Jr.	*Somerville, Mass.*	22 Sanborn
Williams, Walter Longworth	*Brooklyn, N. Y.*	C. and G. House
Wilmot, Ross Hibbard	*Littleton, N. H.*	8 College
Wiswall, Thomas Augustus	*Reading, Mass.*	Β Θ Π House

JUNIORS

Name	Residence	Room
Adriance, Robert Irving	*Winchester, Mass.*	36 Reed
Alley, George Augustus	*Windham, N. H.*	1 Maynard St.
Alling, Marshall Louis	*Kensington, Conn.*	7 b Thornton
Ayers, Augustine Haines	*Concord, N. H.*	6 Richardson
Bankart, George Norman	*Bridgton, Me.*	9 Sanborn
Barker, Thomas	*Chicago, Ill.*	Δ T Δ House
Bell, John Howard	*West Derry, N. H.*	4 Richardson
Bell, William Thomas	*Newmarket, N. H.*	Β Θ Π House
Benton, Charles King	*Peoria, Ill.*	50 Fayerweather
Bishop, Crawford Morrison	*Baltimore, Md.*	40 Fayerweather
Blood, Robert McCutchins	*Charlestown, Mass.*	Β Θ Π House
Bodwell, William Mottimer	*Portland, Me.*	41 S. Main St.
Bourne, Charles Luther	*Auburndale, Mass.*	9 Wentworth
Bowlby, Noble Oscar	*Wilder, Vt.*	8 Lebanon St.
Boynton, Herbert Leslie	*Haverhill, Mass.*	10 Thornton
Brackett, Colborn Barrell	*Greenland, N. H.*	Κ Κ Κ House
Brock, Maynor Davis	*North Conway, N. H.*	6 W. Wheelock St.
Brooks, Addison Gott	*Gloucester, Mass.*	3 Crosby
Brown, Homer Francis	*Saco, Me.*	5 College St.
Brown, Thurmond	*St. Louis, Mo.*	Bridgman Block
Brown, William Hyde	*Cleveland, O.*	1 Fayerweather
Buckbee, Neil Stanley	*French Mountain, N. Y.*	12 Lebanon St.
Burnie, Arthur Newell	*Biddeford, Me.*	Bridgman Block
Burtch, John Jay	*Chicago, Ill.*	6 Sanborn
Butterfield, Ray Evan	*Perkinsville, Vt.*	2 Wentworth
Carpenter, Robert Franklin	*Cleveland, O.*	10 Hubbard
Chandler, John Fairfield	*Worcester, Mass.*	34 Reed
Chapin, Arthur Wood	*Boston, Mass.*	39 Fayerweather
Chase, Joseph Theodore	*Holyoke, Mass.*	25 N. Main St.
Chase, Phillips Maurice	*Galesburg, Ill.*	Φ Δ Θ House
Chellis, Converse Alvah	*Meriden, N. H.*	26 Fayerweather
Cheney, Henry Howard	*Newtonville, Mass.*	3 Richardson
Chidley, Howard James	*Powles Corners, Ontario*	23 College
Childs, Francis Lane	*Henniker, N. H.*	18 Reed
Clark, Edward Everett	*Pittsfield, N. H.*	15 S. Main St.
Coburn, Harry Warner, Jr.	*Lowell, Mass.*	1 Hubbard
Cochran, Albert Clarendon	*Andover, N. H.*	22 Crosby
Cogswell, Eliot Sanborn	*Stratford, Conn.*	19 Sanborn
Connell, Thomas Michael	*East Weymouth, Mass.*	11 Wentworth
Cooke, Randall Bradford	*East Whitman, Mass.*	3 Fayerweather
Cragin, Arthur Mantor	*Rondout, N. Y.*	18 Reed
Cromwell, John Wesley, Jr.	*Washington, D. C.*	5 Elm
Cummings, Herbert Wiley	*Baldwinsville, Mass.*	13 E. Wheelock St.

Name	Residence	Room
Cushing, Joseph	*Lakeport, N. H.*	42 Fayerweather
Cushing, Stephen Salisbury	*Lakeport, N. H.*	42 Fayerweather
Denison, Roy Erskine	*Pittsfield, N. H.*	15 S. Main St.
DeNyse, Percy Lott	*Brooklyn, N. Y.*	16 Wentworth
Dwyer, Louis Richard	*Bradford, Mass.*	Davison Block
Eastman, Frank Herman	*Fort Ann, N. Y.*	5 College St.
Edgerton, Halsey Charles	*Northfield, Vt.*	8 Reed
Edgerton, Malcolm James	*Northfield, Vt.*	8 Reed
Erickson, Percy Elwood	*Kearny, N. J.*	17 Wentworth
Evans, Robie Mason	*Fryeburg, Me.*	27 Fayerweather
Everett, Chester McKenzie	*Champlain, N. Y.*	Observatory
Farrington, Jeremiah Arthur	*Portsmouth, N. H.*	Β Θ Π House
Felt, Paul Revere	*Hillsboro Bridge, N. H.*	52 Fayerweather
Fish, Harold Dufur	*South Royalton, Vt.*	14 Fayerweather
Fitts, Ralph Corydon	*Manchester, N. H.*	10 School St.
Ford, Trall Edward	*Chicago, Ill.*	25 N. Main St.
Fox, William Henry	*Clinton, Mass.*	1 Fayerweather
French, Charles Ward	*Roxbury, Mass.*	Davison Block
French, Edward Sanborn	*Somerville, Mass.*	25 S. Main St.
Gardiner, William Henry, Jr.	*Chicago, Ill.*	24 Sanborn
Gibb, Oscar Edward	*Barton Landing, Vt.*	6 E. South St.
Glaze, Ralph	*Denver, Colo.*	Bridgman Block
Gleason, William Fogarty	*Norwich, Conn.*	Davison Block
Goodwin, Reuben Albert	*Westville, Vt.*	22 College
Gordon, Thurlow Marshall	*Methuen, Mass.*	Observatory
Gray, Clarence Tebbets	*Newport, Vt.*	25 S. Main St.
Griffin, James Thomas, Jr.	*So. Hadley Falls, Mass.*	5 College St.
Grover, Louis Clayton	*Dana, Mass.*	C. and G. House
Guyer, Foster Erwin	*Hyannis, Mass.*	4 College St.
Hartmann, Max	*Norwood, Mass.*	1 Elm
Harvey, James Frederick	*Rock, Mass.*	5 Wentworth
Haslam, John William	*Providence, R. I.*	13 Elm
Hatch, Daniel Phillips	*Everett, Mass.*	23 S. Main St.
Hazen, Edwin Humphrey	*Middleton, Conn.*	Χ Φ House
Herr, Edward Albert	*Waterbury, Conn.*	23 S. Main St.
Heyhoe, Albert George	*North Pomfret, Vt.*	8 Lebanon St.
Higman, Harry Wentworth	*Chicago, Ill.*	Φ Δ Θ House
Holmes, Percival Jerauld	*Somerville, Mass.*	7 Maple St.
Howard, Charles Sumner	*Oskaloosa, Ia.*	Φ Δ Θ House
Howe, Willis Dearborn	*Woodsville, N. H.*	43 Fayerweather
Jeffreys, Arthur Henry	*Chelsea, Mass.*	5 Elm
Jones, Fred Andros	*Nashua, N. H.*	33 Reed
Kelley, Arthur Olin	*Franklin Falls, N. H.*	34 Fayerweather
Kelley, Frank Howard	*Roxbury, Mass.*	15 Fayerweather
Kelly, Eric Philbrook	*Amesbury, Mass.*	9 S. Park St.
Kendall, Henry Sibley	*LaGrange, Ill.*	19 Crosby

Name	Residence	Room
Kingsbury, John Howard	*Albany, N. Y.*	Α Δ Φ House
Kraft, Charles Herbert	*Brooklyn, N. Y.*	16 Sanborn
Laton, George Peavey	*Nashua, N. H.*	3 Crosby
Leveroni, Nathaniel	*Keene, N. H.*	13 Sanborn
Libby, Arthur Frederick	*Putnam, Conn.*	Χ Φ House
Loff, George	*Worcester, Mass.*	Bridgman Block
McGrail, William Phipps	*Worcester, Mass.*	Bridgman Block
McIntire, Donald Cahoon	*Roswell, N. M.*	K K K House
McMore, Harry Allen	*Fort Ann, N. Y.*	5 College St.
Macullar, Harvey Sumner	*Cambridge, Mass.*	15 College
Main, David John	*Denver, Colo.*	Bridgman Block
Marden, Edgar Avery	*Stoughton, Mass.*	17 Reed
Marshall, John Knox	*Brookline, Mass.*	29 Richardson
Martin, Leigh Shepard	*Rockford, Ill.*	16 Sanborn
Meservey, Arthur Bond	*Ashland, N. H.*	19 Reed
Mitchell, George Henry	*Lowell, Mass.*	11 W. South St.
Montgomery, Wilder Percival	*Washington, D. C.*	10 Fayerweather
Moore, William Herbert	*Peterboro, N. H.*	10 Wentworth
Morse, Frank Thomas	*Orange, Mass.*	5 College St.
Neal, Erlon Hugh	*Rochester, N. H.*	16 Crosby
Oakford, Edward Lines	*Peoria, Ill.*	Φ Δ Θ House
O'Brien, Michael Stephen	*Lawrence, Mass.*	16 Wentworth
Owen, Roy Mansfield	*Chicago, Ill.*	22 Crosby
Page, William Ray	*Shiloh, O.*	34 Fayerweather
Parker, Fred Foster	*West Swanzey, N. H.*	1 Crosby
Patten, Harold Taylor	*Cambridge, Mass.*	10 Wentworth
Patteson, Griesser Winston	*Cleveland, O.*	C. and G. House
Paul, Philip Batcheller	*Boston, Mass.*	Φ Δ Θ House
Perry, Clifford Omera	*Danvers, Mass.*	2 Sanborn
Pierce, Charles Alfred	*Suffield, Conn.*	26 Fayerweather
Powers, Walter	*Hyde Park, Mass.*	15 Crosby
Pratt, Elon Graham	*Brooklyn, N. Y.*	25 S. Main St.
Proctor, George Newton, Jr.	*Fitchburg, Mass.*	30 Richardson
Rainie, Herbert Williamson	*Concord, N. H.*	Δ Τ Δ House
Redlon, Nathan Carroll	*Portland, Me.*	18 Crosby
Redman, Edward Blanchard	*Lowell, Mass.*	1 Wentworth
Richardson, Robert Wallace	*Lisbon, N. H.*	7 Fayerweather
Ritchie, James John	*West Barnet, Vt.*	43 Fayerweather
Rugg, Harold Goddard	*Proctorsville, Vt.*	1 Wentworth
Russ, Charles Alonzo	*Somerville, Mass.*	25 S. Main St.
Russell, Louis Webster	*Plymouth, N. H.*	25 N. Main St.
Russell, Norman	*Newburyport, Mass.*	Davison Block
Scott, Ralph Wentworth	*Newton Centre, Mass.*	3 Richardson
Scribner, Frederick Parker	*Raymond, N. H.*	24 Hallgarten
Seager, George James	*Penn Yan, N. Y.*	The Hanover Inn
Sickman, Guy Leonard	*Holyoke, Mass.*	Β Θ Π House

Name	Residence	Room
Silha, Emil Albert	*Chicago, Ill.*	25 S. Main St.
Slack, John Phelps	*Bethel, Conn.*	K K K House
Sleeper, Finlay Page	*North Haverhill, N. H.*	Bridgman Block
Smith, Eugene Greeley	*Templeton, Mass.*	21 Sanborn
Smith, Ephraim John	*Newport, Vt.*	7 b Thornton
Smith, Harold Earle	*Athol, Mass.*	34 Reed
Smith, Joseph Thomas	*East Weymouth, Mass.*	K K K House
Smith, Watson Burchard	*Omaha, Neb.*	1 Crosby
Soule, Carlton Monson	*East Weymouth, Mass.*	9 Wentworth
Souter, Clyde Douglas	*Kearny, N. J.*	17 Wentworth
Southworth, Chester Dean	*Somerville, Mass.*	7 Maple St.
Spencer, Bertrand Edwin	*Wilder, Vt.*	19 Sanborn
Stanton, Harold Bacon	*Newton, Mass.*	27 Fayerweather
St. Clair, Earle Jason	*Plymouth, N. H.*	18 Crosby
Stephens, William A	*Albany, N. Y.*	Δ T Δ House
Swasey, George Leroy	*Concord, N. H.*	18 Sanborn
Tarr, Alphonso Remby	*Gloucester, Mass.*	4 Fayerweather
Thomas, David	*Neath, Penn.*	8 Thornton
Thompson, Ernest Alvin	*Cambridge, Mass.*	21 Sanborn
Thompson, Ralph Joseph	*Hyde Park, Mass.*	X Φ House
Thrall, Henry Dutton	*Leicester, Mass.*	Φ Δ Θ House
Torrey, Elbridge Channery	*West Newbury, Vt.*	9 College St.
Varick, Remsen	*Manchester, N. H.*	2 Proctor
Wallace, Robert Burns	*Milford, N. H.*	25 N. Main St.
Walsh, Frederick William	*Somersworth, N. H.*	2 W. Maple St.
Ward, Harold Edward	*Kennebunk, Me.*	5 Fayerweather
Waring, Dwight Stowe	*Fall River, Mass.*	19 Crosby
Webster, Merton Wells	*Berlin, Conn.*	Δ T Δ House
Welch, Frederick William	*East Lempster, N. H.*	20 S. Main St.
Wells, Arthur Sethus	*Middlesex, Vt.*	1 Elm
Whittemore, Harvey Foss	*Framingham, Mass.*	Δ Δ Φ House
Winship, Harold Carter	*Reading, Mass.*	22 Fayerweather
Wood, Bourne	*Middleboro, Mass.*	26 Richardson
Wood, Raymond Collins	*Haverhill, Mass.*	X Φ House
Wright, Robert Garfield	*Quincy, Mass.*	23 Crosby

SOPHOMORES

Ahern, William Joseph, Jr.	*Concord, N. H.*	25 Fayerweather
Andrews, Walter Raymond	*Newton Centre, Mass.*	5 Hubbard
Ashley, Edward Lester	*So. Royalton, Vt.*	14 Fayerweather
Averill, Hiram Harrison	*Barre, Vt.*	9 College St.
Babcock, Aloney Brigham	*St. Regis Falls, N. Y.*	1 Thornton
Bailey, Dearborn	*Dedham, Mass.*	B Θ Π House
Baldwin, Fred Harold	*Somerville, Mass.*	15 E. Wheelock St.

Name	Residence	Room
Barker, Edward Bell	*Pittsfield, N. H.*	23 N. Main St.
Barnes, Samuel Lawrence	*Danvers, Mass.*	20 Crosby
Bartlett, James Agard	*Rockford, Ill.*	22 Wentworth
Bartlett, Samuel Colcord	*Hanover, N. H.*	8 W. Wheelock St.
Beetle, Ralph Dennison	*New Bedford, Mass.*	25 Sanborn
Berry, Lester Stiles	*St. Johnsbury Centre, Vt.*	54 Fayerweather
Besse, Stanley	*Newburyport, Mass.*	Davison Block
Billings, Warren Chesbrough	*Milford, N. H.*	17 Reed
Black, Dennis Leo	*Nashua, N. H.*	12 Hubbard
Blaisdell, John Harper	*Winchester, Mass.*	13 W. Wheelock St.
Blake, Henry Cleveland	*East Fairfield, Me.*	23 N. Main St.
Blatherwick, James Albert	*Denver, Colo.*	2 Proctor
Blythe, Harry Randolph	*Aurora, Ill.*	16 Thornton
Bourne, Arthur Israel	*Pembroke, N. H.*	23 N. Main St.
Boyer, Francis Burleigh	*Somersworth, N. H.*	15 Sanborn
Braun, Gustav Feige	*Everett, Mass.*	2 Thornton
Brock, Timothy Wolcott	*North Conway, N. H.*	13 Thornton
Brooks, Eugene Childs	*Cambridge, Mass.*	K K K House
Brown, Allan	*Concord, Mass.*	9 Thornton
Brown, James Barrett	*Everett, Mass.*	K K K House
Brown, Ray Wilbur	*Fall River, Mass.*	Davison Block
Burns, James Alexander	*Lancaster, Mass.*	16 Thornton
Chase, Philip Hartly	*Hanover, N. H.*	38 College St.
Churchill, Perley Walter	*Berlin, N. H.*	11 Hallgarten
Churchill, Wendall Herman	*Berlin, N. H.*	11 Hallgarten
Clough, Walter Hayden	*Lawrence, Mass.*	20 Thornton
Clough, William Plummer	*New London, N. H.*	29 Reed
Coburn, Joseph Marshall	*Boston, Mass.*	12 Hallgarten
Cochrane, Robert Carlyle	*Somerville, Mass.*	47 Fayerweather
Colby, Will Guy	*Franklin, N. H.*	9 Elm
Cooke, Henry Elentheros, Jr.	*Warren, O.*	2 Proctor
Coombs, Norman Charles	*Oak Park, Ill.*	4 Hubbard
Crocker, John Franklin, Jr.	*Cambridge, Mass.*	6 Sanborn
Cummings, Willard Howe	*Meredith, N. H.*	7 Elm
Cunningham, Richard Beck	*Wellesley Hills, Mass.*	22 Reed
Currier, Leon Levy	*Sunapee, N. H.*	Davison Block
Cushman, Norman Locke	*Arlington, Mass.*	6 Proctor
Dalrymple, George Emerson	*Haverhill, Mass.*	7 College
Davis, Nathaniel Francis	*Davisville, N. H.*	38 Fayerweather
Davis, Orlando Chester	*Lowell, Mass.*	15 Thornton
Dillon, Walter Sidney	*Fitchburg, Mass.*	28 College
Dodge, Amos	*Concord, N. H.*	14 Crosby
Dondero, Charles Anthony	*Portsmouth, N. H.*	27 Reed
Downey, John Eustis	*Newtonville, Mass.*	25 N. Main St.
Dudley, Guy Earle	*Waterford, Me.*	12 Sanborn
Dutton, Julius Mason	*Portsmouth, N. H.*	Davison Block

Name	Residence	Room
Early, Philip Austin	*Newton Lower Falls, Mass.*	2 Crosby
Edwards, Frederic	*New Bedford, Mass.*	8 Wentworth
Farrier, Albert Moses	*Brooklyn, N. Y.*	3 Reed
Field, Thomas Sullivan	*Nashua, N. H.*	12 Hubbard
Fields, Charles Weeks	*Bristol, N. H.*	19 Reed
Filiau, Clarence George	*Hanover, N. H.*	30 Lebanon St.
Forbes, David Purdon	*New Dorchester, Mass.*	15 Crosby
Foster, Fred Emerson	*Concord, N. H.*	21 Crosby
Fowler, Earle Bloodgood	*Oak Park, Ill.*	48 Fayerweather
Frost, Ernest Howard	*Brockton, Mass.*	6 College St.
Gage, Jesse Witherspoon	*Manchester, N. H.*	23 S. Main St.
Gallagher, Morrill Allen	*Roxbury, Mass.*	Bridgman Block
Garby, William Frank	*Walpole, Mass.*	2 Richardson
Garvin, Samuel Francis	*Sanbornville, N. H.*	1 Reed
Gere, Alfred Dalton	*Northampton, Mass.*	12 Richardson
Gerry, Louis Cardell	*Hyde Park, Mass.*	23 Sanborn
Gilman, Joseph Taylor	*Exeter, N. H.*	26 Richardson
Glattfeld, John William Edward	*Quincy, Ill.*	16 Thornton
Goode, Richard Henry	*Somerville, Mass.*	18 Richardson
Gray, Harry Matt	*Chicopee Falls, Mass.*	13 Thornton
Grebenstein, George Warren	*Cambridge, Mass.*	15 Sanborn
Greenleaf, Fred Bacon	*Auburn, Me.*	16 Richardson
Greenwood, Ivan Anderson	*Cleveland, O.*	7 Wentworth
Griffin, Michael Bernard	*Newmarket, N. H.*	12 Hallgarten
Hale, Glenn Joel	*Windsor, Vt.*	20 College
Hale, Samuel, Jr.	*Dover, N. H.*	K K K House
Haley, Henry Thomas	*Roslindale, Mass.*	9 College
Hammond, Dana King	*Berwick, Me.*	20 Reed
Hammond. John Wilkes, Jr.	*Cambridge, Mass.*	9 Richardson
Hanson, Fred Ernest	*Springvale, Me.*	1 Reed
Harris, Julian Chapin	*Bedford, Mass.*	5 Hallgarten
Hart, John Shelley	*Racine, Wis.*	8 Crosby
Hathaway, Charles Henry	*Malden, Mass.*	The Hanover Inn
Hayes, Reuben	*Dover, N. H.*	Davison Block
Hazen, Albert Rockwell	*White River Junction, Vt.*	2 Richardson
Hazen, Conrad Philip	*Norwich, Vt.*	1 Bartlett
Hazen, Freeman Brackett	*Manchester, N. H.*	23 S. Main St.
Hazen, Richard	*Wilder, Vt.*	8 Crosby
Heneage, Harry Robert	*Oak Park, Ill.*	4 Hubbard
Herrick, Ralph Crosby	*Winchester, Mass.*	47 Fayerweather
Hiestand, Dwight Willard	*Chicago, Ill.*	3 N. Park St.
Hill, Herman Henry	*Chelmsford, Mass.*	1 Wentworth
Hinman, Herbert Davis	*Groveton, N. H.*	35 Fayerweather
Holden, Carroll Charles	*Proctor, Vt.*	6 Hallgarten
Holman, Leon Madison	*Baldwinsville, Mass.*	9 College St.
Holmes, Arthur Dunham	*Walpole, N. H.*	21 Wentworth

Name	Residence	Room
Howard, George Henry	*Craftsbury, Vt.*	54 Fayerweather
Howard, Henry Dwight, Jr.	*Ludlow, Vt.*	9 College St.
Howard, McKay Sylvander	*West Lebanon, N. H.*	3 Hubbard
Hoyt, George Herbert	*Hyde Park, Mass.*	23 Sanborn
Hutchinson, Jonas	*Chicago, Ill.*	1 Proctor
Jennings, Harold Delmont	*Fairfield, Me.*	23 N. Main St.
Jennings, William	*Somerville, Mass.*	20 Crosby
Jewett, John Vernon	*Hathorne, Mass.*	23 N. Main St.
Jordan, John Harold	*Brighton, Mass.*	30 Fayerweather
Just, Ernest Everett	*Charleston, S. C.*	26 Hallgarten
Keady, John Thomas	*Wakefield, Mass.*	23 Reed
Kelley, Harry George	*Omaha, Neb.*	8 Crosby
Kennedy, Walter Gardner	*Harwichport, Mass.*	5 Proctor
Kenyon, Robert Dexter	*Dorchester, Mass.*	24 Wentworth
Ketcham, Henry Chapin	*Indianapolis, Ind.*	22 Hallgarten
Kibling, Alfred Lorenzo	*West Lebanon, N. H.*	13 Hallgarten
Kimball, William Rice	*Oak Park, Ill.*	6 Proctor
King, Victor Louis	*Rutherford, N. J.*	9 Elm
Kitching, Albert Harper	*Melrose, Mass.*	X Φ House
Knapp, Merton Clark	*Keene, N. H.*	21 Wentworth
Knight, Nathaniel Hobbs	*No. Berwick, Me.*	Bridgman Block
Knight, Philip Tilton	*West Newton, Mass.*	2 Crosby
Knight, Ralph Gardner	*Randolph, Mass.*	8 College St.
Lane, Henry Richardson	*Chicago, Ill.*	X Φ House
Langill, Morton Howard	*Hanover, N. H.*	21 Allen St.
Langley, Clarence Erwin	*Wolfboro, N. H.*	9 College St.
Lavin, Roy Everett	*Berlin, N. H.*	33 Fayerweather
Leavitt, Arthur Howland	*Spencer, Mass.*	3 Thornton
Leighton, Walter Martin	*Haverhill, Mass.*	10 Thornton
Lena, Fred Thomas	*Lawrence, Mass.*	16 Wentworth
Leonard, Edward Henry	*Boston, Mass.*	8 Wentworth
Lewis, Robert Park Morrison	*Lawrence, Mass.*	40 S. Main St.
Liscomb, George Edward	*Somerville, Mass.*	16 Crosby
Locke, William Maynard	*Winchendon, Mass.*	13 E. Wheelock St.
Lyford, Henry Mellish	*Kingston, N. H.*	5 Wentworth
Lyon, Robert Isaac	*Washington, D. C.*	12 Sanborn
McCann, Joseph Patrick	*Chelsea, Mass.*	2 Elm
McCoy, Wallis Angus	*Somerville, Mass.*	K K K House
McDavitt, John Frank	*Pompton Lakes, N. J.*	11 Richardson
McDevitt, Harry Sullivan	*Allston, Mass.*	30 Fayerweather
MacDonald, Jerome Ambrose	*Boston, Mass.*	18 College
McDonough, Frank, Jr.	*Denver, Colo.*	9 Thornton
McGrath, Ray Percy	*Lisbon, N. H.*	7 Fayerweather
McKearin, James Patrick	*Proctor, Vt.*	6 Hallgarten
McKendree, Charles Alphonso	*Manchester, N. H.*	41 S. Main St.
McLane, John Roy	*Milford, N. H.*	21 Crosby

Name	Residence	Room
Mahoney, Joseph Courtney	*Millers Falls, Mass.*	1 Wentworth
Mann, Harley Elmer	*Woodsville, N. H.*	6 Elm St.
Mathes, Benjamin William	*Newmarket, N. H.*	Β Θ Π House
Maxfield, Claude Bentley	*Mt. Sunapee, N. H.*	13 Hallgarten
Merrill, Guy Rindge	*Cambridge, Mass.*	8 Sanborn
Minsch, William Joseph	*Worcester, Mass.*	24 Thornton
Mitchell, Herbert Hamilton	*LaGrange, Ill.*	12 Richardson
Mullins, Roy	*Baldwinsville, Mass.*	9 College St.
Nesmith, Walter Scott	*Goffstown, N. H.*	32 N. Main St.
Newton, Carl Albert	*Beverly, Mass.*	37 Fayerweather
Nickerson, Albion Ross	*Swanville, Me.*	24 Wentworth
Niles, Harold Louville	*Somerville, Mass.*	20 Crosby
Norris, Clifford Eaton	*Riverside, R. I.*	4 Occom Ridge
O'Connor, Joseph Augustine	*Lawrence, Mass.*	20 Thornton
Oliphant, Harold Duncan	*Methuen, Mass.*	2 Thornton
O'Neill, James Milton	*Canandaigua, N. Y.*	5 W. South St.
Ordway, Fred Dickey	*Milford, N. H.*	Δ Τ Δ House
Paris, Urias George	*Sandy Hill, N. Y.*	16 Richardson
Parker, Charles Stevens	*Brookline, Mass.*	23 S. Main St.
Parker, Harold	*Portsmouth, N. H.*	19 Fayerweather
† Parkhurst, Wilder Lewis	*Winchester, Mass.*	33 Reed
Paton, Leon Bruce	*Danvers, Mass.*	1 Thornton
Pearson, Robert Houghton	*Concord, N. H.*	5 Crosby
Peck, Russell Hastings	*Mt. Vernon, N. H.*	24 Thornton
Pelren, Harry Joseph	*Concord, N. H.*	13 Crosby
Perkins, Ralph Sherburne	*Pittsfield, N. H.*	15 S. Main St.
Perry, Thomas Daniel	*Burlington, Vt.*	6 Proctor
Pierce, Carlos Thornton	*Newton Centre, Mass.*	5 Hubbard
Piper, Jonathan	*Stratham, N. H.*	11 Wentworth
Plummer, Curtis	*Brookline, Mass.*	11 Richardson
Pond, Bremer Whidden	*Winchester, Mass.*	12 Crosby
Porter, Harry Woodbury	*Oldtown, Me.*	19 Fayerweather
Powers, Philip Montague	*Newton, Mass.*	Bridgman Block
Prentice, Eugene Miles	*Du Quoin, Ill.*	22 Reed
Prichard, Reuben Parker	*Somerville, Mass.*	Κ Κ Κ House
Priest, Frederick Franklin	*Holyoke, Mass.*	25 S. Main St.
Prouty, Ira Humphrey	*Keene, N. H.*	Φ Δ Θ House
Putnam, Boyd Wason	*Lowell, Mass.*	3 College
Ransom, Daniel Parke	*Woodstock, Vt.*	8 Elm
Redington, Theodore Towne	*Evanston, Ill.*	11 Hubbard
Reilly, James Crowley	*Lowell, Mass.*	21 College
Reilly, Thomas Edward	*Randolph, Mass.*	8 College St.
Rice, Charles Arthur Allingham	*Springfield, Mass.*	18 Wentworth
Richards, Earl Thomas	*Holyoke, Mass.*	25 Reed
Richardson, Charles Potter	*Dover, N. H.*	14 Crosby

† Deceased.

Name	Residence	Room
Richardson, Edward	*Wellesley Hills, Mass.*	K K K House
Richardson, Elwood Seward	*Oak Park, Ill.*	8 Sanborn
Richardson, Philip	*Nashua, N. H.*	5 N. Park St.
Riley, Francis Bradford	*Jamaica Plain, Mass.*	9 Sanborn
Roberts, Carl Noyes	*Place, N. H.*	23 Wentworth
Romayne, Harrie Carlyle	*Milo Centre, N. Y.*	30 Hallgarten
Rowell, Frank Fulton	*Sunapee, N. H.*	13 Hallgarten
Sanborn, Moses Herman	*Fremont, N. H.*	29 Hallgarten
Sanborn, Walter Butler	*Somerville, Mass.*	K K K House
Sanborn, William Augustus, Jr.	*Somerville, Mass.*	25 Reed
Sandy, Chester James	*Chicago, Ill.*	44 College St.
Schwarz, Hugo Ignotz	*Rutland, Vt.*	5 Thornton
Shattuck, Roger Conant	*Nashua, N. H.*	16 Reed
Sheehan, Dennis Edward, Jr.	*Middleboro, Mass.*	19 Hallgarten
Shepard, Charles Francis	*Somerville, Mass.*	17 S. Main St.
Sibley, Homer Taft	*No. Newport, N. H.*	26 Reed
Smart, Wilfred Hiram	*Canaan, N. H.*	19 Reed
Smead, Ralph Amsden	*Greenfield, Mass.*	5 Hallgarten
Smith, Chauncey Wayland	*Skowhegan, Me.*	25 Lebanon St.
Smith, Floyd Tangier	*Hanover, N. H.*	17 S. Main St.
Smith, Morris Kellogg	*Hanover, N. H.*	9 School St.
Smith, Pierre Journeay	*Upper Montclair, N. J.*	6 Richardson
Southgate, Richard Steele	*Woodstock, Vt.*	9 Crosby
Spencer, Ray Allison	*Ayer, Mass.*	3 Bartlett
Sprague, Leon Alfred	*Haverhill, Mass.*	7 College
Stearns, Chester Arthur	*Johnson, Vt.*	21 College
Stern, Clarence Henry	*Albany, N. Y.*	20 Fayerweather
Stevens, Albert Emery	*Lawrence, Mass.*	8 Wentworth
Stilphen, Cornelius Mortimer	*Boston, Mass.*	Β Θ Π House
Stokes, Robert Thomas, Jr.	*Brooklyn, N. Y.*	18 Thornton
Stone, Earle Hildreth	*Dunbarton, N. H.*	9 College St.
Storrs, Harry Carl	*Hanover, N. H.*	42 S. Main St.
Tabor, Parker Wilson	*Pittsburg, N. H.*	12 Crosby
Tarbell, John Appleton	*Somerville, Mass.*	33 Reed
Taylor, Arthur Wendell	*Warren, Mass.*	9 College St.
Taylor, Franklin Barrett	*Centreville, Mass.*	25 N. Main St.
Taylor, Levi Marlon	*Haverhill, Mass.*	5 Crosby
Terrien, George Dominick	*Nashua, N. H.*	14 Hubbard
Tibbets, Albert Perkins	*Somersworth, N. H.*	18 College
Tileston, Roland Ray	*Randolph, Mass.*	23 N. Main St.
Tourtellott, Clarence William	*Danvers, Mass.*	1 Thornton
Trickey, Ernest Hodgdon	*Rochester, N. H.*	6 College
Twiss, William Bertram	*New Bedford, Mass*	29 Sanborn
Vail, Solon Joshua	*Randolph, Vt.*	14 School St.
Walker, William Dodge	*Goffs Falls, N. H.*	9 Crosby
Wallace, John Carman	*Cleveland, O.*	10 Hubbard

Name	Residence	Room
Wallace, James William	*St. Louis, Mo.*	Φ Δ Θ House
Warner, Harry James	*Muskegon, Mich.*	B Θ Π House
Washburn, Benjamin Martin	*Bethel, Vt.*	26 Reed
Wayman, Harry Parcell	*Chicago, Ill.*	10 Richardson
Wehrle, Walter Goble	*Roxbury, Mass.*	3 College
Wellman, Harvey Richmond	*Lowell, Vt.*	20 College
Whitaker, Harry Stewart	*Newport, Vt.*	11 Reed
White, Alfred Gault	*St. Louis, Mo.*	Φ Δ Θ House
Wight, David Edward	*Ogdensburg, N. Y.*	3 Bartlett
Williams, Don Jason	*Keene, N. H.*	13 Sanborn
Willson, Charles Wesley Talpey	*Farmington, N. H.*	23 Wentworth
Winslow, Arthur Eugene	*Oakland, Me.*	21 Reed
Witham, William Eastburn	*Philadelphia, Penn.*	X Φ House
Wood, Louis Carl	*Gorham, N. H.*	11 Reed
Woodbury, Chester Tenney	*Salem, N. H.*	3 Bartlett
Woodman, Leslie Samuel	*Kingston, N. H.*	28 Hallgarten
Woodworth, Charles Parker	*Concord, N. H.*	13 Crosby
Worthen, Thacher Washburn	*Hanover, N. H.*	11 Webster Ave.
Wright, Russell Burleigh	*LaGrange, Ill.*	12 Richardson
Wyman, William Ulysses	*Somerville, Mass.*	5 Crosby
Young, Percy Lawrence	*Boston, Mass.*	20 Richardson

FRESHMEN

Adler, Lawrence	*New York, N. Y.*	5 Reed
Alden, Alanson Gilbert	*Orange, N. J.*	14 Hallgarten
Anderson, Arthur Theodore	*East Boston, Mass.*	8 Hallgarten
Anderson, Frank William	*East Boston, Mass.*	8 Hallgarten
Andrew, Thomas Edwin	*Lawrence, Mass.*	12 Wentworth
Atwood, William Thompson	*Ware, Mass.*	23 Lebanon St.
Badger, Erastus Beethoven, 2d	*Winchester, Mass.*	28 Reed
Baine, George Fredson	*Clinton, Mass.*	1 Richardson
Balcom, Stanley Goddard	*Athol, Mass.*	12 Fayerweather
Barnes, Arthur Bradley	*Lowell, Mass.*	11 Fayerweather
Bartlett, Edward Payson	*Belchertown, Mass.*	14 Reed
Batchelder, Paul Mason	*Portsmouth, N. H.*	25 Hallgarten
Beane, Charles Henry	*Cambridge, Mass.*	18 Fayerweather
Beckett, Bertram	*Cambridge, Mass.*	13 Wentworth
Bennett, Charles Greenleaf	*Tilton, N. H.*	4 College St.
Bills, Clinton Edwin	*Monson, Mass.*	13 Fayerweather
Blake, Charles Clifton	*Sandy Hill, N. Y.*	5 College
Blake, Francis Gilman	*Brookline, Mass.*	1 Sanborn
Blakely, Joseph Uring	*Montpelier, Vt.*	26 College
Blanchard, Gordon	*Brookline, Mass.*	36 Reed

Name	Residence	Room
Blanpied, David Robert	*Newtonville, Mass.*	27 Sanborn
Blodgett, Guy Cleveland	*Milford, N. H.*	21 School St.
Blood, Arthur Kimball	*Lynn, Mass.*	7 Crosby
Boothby, Marsh Bowden	*St. Louis, Mo.*	50 Fayerweather
Butterfield, George	*No. Bedford, Mass.*	31 Reed
Carns, Raymond Ledden	*East Berlin, Conn.*	12 Reed
Carr, Wallace George	*Orford, N. H.*	7 Elm
Carter, Royal Parkinson	*Woburn, Mass.*	24 Reed
Chandler, Albert Richard	*Norwich, Conn.*	40 S. Main St.
Chase, Cleon Joseph	*Concord, N. H.*	9 Hubbard
Chedel, Robert Whitcomb	*Randolph, Vt.*	4 Wentworth
Chesley, Roland Edward	*West Lebanon, Me.*	35 Reed
Church, Douglas Jasperson	*New York, N. Y.*	4 Thornton
Clark, Harold Charles	*Keene, N. H.*	4 Elm
Clark, John Alexander	*Evanston, Ill.*	11 Hubbard
Coffin, Whitman King	*Medford, Mass.*	5 Hallgarten
Cogswell, Harold Bickford	*Concord, N. H.*	9 Hubbard
Cole, Leon Sargent	*Claremont, N. H.*	12 Elm
Comstock, Donald Laird	*Chelsea, Vt.*	4 Bartlett
Cook, Frank Gordon	*Concord, N. H.*	23 Fayerweather
Cooper, Fred Allen	*Chicago, Ill.*	10 Richardson
Cowee, Howard Wyman	*Worcester, Mass.*	35 Reed
Crafts, Laurence Houghton	*Reading, Mass.*	13 Reed
Crosby, Sumner	*Centreville, Mass.*	9 Reed
Crowley, Ralph Elmer	*Taunton, Mass.*	49 Fayerweather
Currier, Ralph Prescott	*Ponemah, N. H.*	21 School St.
Cushing, John Thayer	*Lakeport, N. H.*	42 Fayerweather
Cushman, Oliver Wesley	*Manchester, N. H.*	7 Pleasant St.
Dana, Edward Swan	*Woodstock, Vt.*	A Δ Φ House
Danforth, Richard Stevens	*Gardiner, Me.*	21 Allen St.
Dann, William Wallace	*Norwalk, Conn.*	21 Richardson
Darling, Edwin Woodbridge	*Boston, Mass.*	28 Fayerweather
DeAngelis, Charles LeMoyne	*Utica, N. Y.*	41 Fayerweather
Detlefsen, John Adolph	*Cambridge, Mass.*	16 Hallgarten
Donahue, Joseph Joyce	*Medford, Mass.*	2 Elm
Dow, Clinton Israel	*Manchester, N. H.*	10 Crosby
Dunham, Jasper Sprague	*Brooklyn, N. Y.*	44 College St.
Dunn, Theodore Ira	*Rockport, Mass.*	15 S. Main St.
Eberly, Arthur Allen	*Hiawatha, Kan.*	31 Reed
Einstein, George Arnold	*New York, N. Y.*	7 Richardson
Elwell, George William	*Exeter, N. H.*	12 Thornton
Emery, Henry Stowell	*Salem Depot, N. H.*	10 Elm
English, Frederic Kent	*Wareham, Mass.*	6 Reed
English, Harold Lewis	*Lisbon, N. H.*	17 Sanborn
English, William Frye, Jr.	*East Windsor, Conn.*	13 Fayerweather
Evans, Webster Brewer	*Hyde Park, Mass.*	3 Sanborn

Name	Residence	Room
Everett, John Stephen	*Framingham, Mass.*	16 Hallgarten
Farrington, Edward Chipman	*Chelsea, Mass.*	24 Fayerweather
Fiske, Eben Winslow	*Waltham, Mass.*	30 Reed
Flanders, Philip Raymond	*Rochester, N. H.*	6 College
Foote, Warren Cleveland	*Newton Centre, Mass.*	7 Richardson
Ford, Edward Chandler	*Marshfield, Mass.*	23 S. Main St.
Forsaith, William Francis	*Auburn, N. H.*	24 Hallgarten
Frame, Roscoe George	*Topsfield, Mass.*	15 Reed
Frothingham, Donald Yerdon	*Brooklyn, N. Y.*	19 Allen St.
Furman, Walter Ferguson	*Wilton, N. H.*	5 N. Park St.
Gardner, Miles Chester	*Portland, Me.*	8 Fayerweather
Garvin, Frank Augustus	*Sanford, Me.*	21 Fayerweather
Gillette, Jean Duane	*Antwerp, N. Y.*	X Φ House
Glaze, John Baldwin	*Denver, Colo.*	13 Wentworth
Goodhart, Joseph Alfred	*Randolph, Vt.*	14 School St.
Grant, Glenn Richard	*Randolph, Vt.*	5 Richardson
Gray, John Harvey	*Chicopee Falls, Mass.*	18 Wentworth
Greeley, Eliphalet Austin	*Haverhill, Mass.*	20 Wentworth
Greenwood, Lester Clyde	*Farmington, Me.*	9 Pleasant St.
Griffin, Thomas Jerome	*So. Hadley Falls, Mass.*	Benton Place
Griffin, Winthrop Austin	*Greenwood, Mass.*	25 N. Main St.
Griswold, Laurence Wakeman	*Batavia, N. Y.*	23 Richardson
Gustafson, Gustaf James	*East Boston, Mass.*	8 Hallgarten
Hale, Warren Freeman	*Salem, Mass.*	29 Fayerweather
Hall, Charles Merrill	*Providence, R. I.*	10 W. South St.
Hammond, Joseph Albert	*Hebron, N. H.*	7 W. South St.
Hancock, Walter Aiken	*Franklin Falls, N. H.*	17 College
Hanson, Fred Sumner, Jr.	*Somerville, Mass.*	17 Crosby
Harding, Jesse	*Haverhill, Mass.*	3 Reed
Hazen, Ralph William	*Whitefield, N. H.*	18 W. Wheelock St.
Hill, Roger Frank,	*Tilton, N. H.*	4 College St.
Hilton, Howard Hoyt	*Chicago, Ill.*	31 Fayerweather
Hinckley, George Harris	*Calais, Me.*	18 Hallgarten
Hinman, John Holmes	*North Stratford, N. H.*	11 Thornton
Hoar, Crosby Arthur	*West Acton, Mass.*	40 S. Main St.
Hobart, Harold Sawtelle	*Nashua, N. H.*	2 Reed
Hodgson, Fred Hudson	*Methuen, Mass.*	12 Lebanon St.
Holland, Edward Augustus	*Wakefield, Mass.*	23 Reed
Hopkins, Arthur Sherwood	*Rome, N. Y.*	19 Allen St.
Hopkins, Louis Bertram	*No. Uxbridge, Mass.*	21 Reed
Howe, Luther Maxwell	*Wakefield, Mass.*	46 Fayerweather
Huebener, Curtis Edward	*Dorchester, Mass.*	19 Wentworth
Hull, Morton	*Chicago, Ill.*	44 College St.
Hunt, Richard Field	*Newtonville, Mass.*	19 Richardson
Irish, Stacey Burton	*Northfield, Vt.*	2 W. Maple St.
Isaacson, Follett Grael	*Dorchester, Mass.*	10 Hallgarten

Name	Residence	Room
Johnson, James Herbert	*Worcester, Mass.*	A Sanborn
Jordan, Thomas Eugene	*Lebanon, N. H.*	23 S. Main St.
Joyce, Harold Winslow	*Dedham, Mass.*	15 Richardson
Keenan, John	*Granville, N. Y.*	7 Pleasant St.
Keith, Roy Harmon	*Watertown, Mass.*	7 Sanborn
Kelley, Charles Aloysius, Jr.	*Roxbury, Mass.*	10 Richardson
Kennedy, Harry Bean	*Spokane, Wash.*	32 Fayerweather
Kimball, Kenneth Everett	*Ashland, N. H.*	6 Sargent St.
Knight, Joseph King, Jr.	*Hyde Park, Mass.*	12 Fayerweather
Knight, William D	*Rockford, Ill.*	22 Wentworth
Knox, Benjamin Clement	*Manchester, N. H.*	10 Reed
Lane, Robert Raymond	*Westbrook, Me.*	9 Crosby
Lanphear, Amos Clinton	*Westerly, R. I.*	18 Sanborn
Lee, William Leran	*Cleveland, O.*	31 Fayerweather
Lee, William Wallace, Jr.	*Malden, Mass.*	10 Crosby
Leete, George Paul	*Concord, N. H.*	3 College St.
Leitch, Edwin Milton	*Easthampton, Mass.*	23 S. Main St.
Lewis, Arthur Leon	*Lakeport, N. H.*	22 Thornton
Lewis, Morton Lee	*Salt Lake City, Utah*	21 Allen St.
Libby, Joseph Ralph	*Putnam, Conn.*	15 Reed
Lillard, Thaddeus Neely	*St. Louis, Mo.*	1 Sanborn
Locke, Isaac Beauchamp	*Belmont, Mass.*	5 Sanborn
Lowe, George Blaine	*Cleveland, O.*	7 Wentworth
Lowe, Porter Webber	*Fitchburg, Mass.*	18 Richardson
Lunt, Joseph Richard	*Groveland, Mass.*	32 Reed
Lynde, William Mayo	*Williamstown, Vt.*	20 College
Lyon, Henry Ware, Jr.	*Portsmouth, N. H.*	15 Richardson
McAllaster, Howard Edward	*Winnetka, Ill.*	6 College St.
McAllister, Thomas Savory	*West Derry, N. H.*	24 Hallgarten
McAuliffe, Florence Joseph	*Worcester, Mass.*	6 W. Wheelock St.
McCarthy, John Daly	*Fitchburg, Mass.*	17 Hallgarten
McCarthy, Peter Florence	*Dorchester, Mass.*	19 Wentworth
McElwain, John Hazen	*Holyoke, Mass.*	16 College
McKone, Frank Edward	*Dover, N. H.*	7 Reed
McLam, Clarence James	*Ryegate, Vt.*	9 Hallgarten
Mann, Scott Whitcher	*Woodsville, N. H.*	6 Elm
Marion, Gardner Sparhawk	*Brighton, Mass.*	8 Richardson
Marsden, Raymond Robert	*Utica, N. Y.*	15 Hallgarten
Marsh, Everett Thomas	*Evanston, Ill.*	24 Richardson
Marsh, Raymond Eugene	*Westport, N. H.*	4 Elm
Marshall, Lee Woodbury	*Manchester, Mass.*	6 Fayerweather
Mayer, Otto Samuel	*New York, N. Y.*	17 Fayerweather
Melville, Chester Warren	*Brookline, Mass.*	4 Crosby
Merrill, Richard Brackett	*Littleton, N. H.*	11 Sanborn
Miller, William Alexander	*Easthampton, Mass.*	10 W. South St.
Mitchell, Harry Wilbert	*Cleveland, O.*	15 Hallgarten

Name	Residence	Room
Morey, Harold Arthur	*Wilder, Vt.*	25 Lebanon St.
Morrissey, Thomas Paul	*Springfield, Mass.*	2 Reed
Moses, Kirke Lewis	*Lawrence, Mass.*	40 S. Main St.
Mower, Earl Clifford	*Windsor, Vt.*	17 Crosby
Munkelt, Frederick Herman	*Brooklyn, N. Y.*	18 Thornton
Nichols, Andrew Leach	*Hanover, N. H.*	40 S. Main St.
Nichols, Chester Warren	*Reading, Mass.*	18 Hallgarten
Nichols, Leonard Gates	*Reading, Mass.*	13 Reed
Norton, John Aloysius	*Boston, Mass.*	4 Bartlett
Norton, James Jackson	*Chicago, Ill.*	3 School St.
Nute, Stanley Pearl	*Farmington, N. H.*	12 Thornton
O'Shea, Arthur Dennis	*Laconia, N. H.*	22 Thornton
Parker, Raymond Brewer	*Reading, Mass.*	19 College
Parkinson, Dana	*Waltham, Mass.*	30 Reed
Patterson, William Hubbard	*Chicago, Ill.*	24 Sanborn
Patton, John Sidney, Jr.	*Allston, Mass.*	21 Reed
Pease, Ralph Southworth	*Fall River, Mass.*	9 Pleasant St.
Peebles, Richard Rogers	*Ashland, Ky.*	45 Fayerweather
Perkins, Allen Moore	*Wellesley Hills, Mass.*	11 Crosby
Pfeiffer, Charles Arthur	*Quincy, Ill.*	9 Reed
Phillips, Sidney Eames	*Collinsville, Conn.*	10 Hallgarten
Pickett, Charles Waldo	*Portsmouth, N. H.*	K K K House
Pillsbury, Fritzroy Farnsworth	*Saco, Me.*	7a Thornton
Pitcher, Karl Herbert	*Haverhill, Mass.*	53 Fayerweather
Proctor, James Sullivan	*Fitchburg, Mass.*	28 Richardson
Rich, Edward Dillon	*Boulder, Colo.*	13 Wentworth
Rich, Walter Clarence	*Concord, Vt.*	44 Fayerweather
Richardson, Joseph Leland	*Roxbury, Mass.*	2 Hubbard
Robinson, Frank Asbury	*Brookline, Mass.*	17 College
Rogers, Harry Knox	*Concord, N. H.*	3 College St.
Ross, Carl Wilbur	*Calais, Me.*	7 Sanborn
Rotch, Arthur Boylston	*Milford, N. H.*	25 Richardson
Royce, Clayton Elbert	*West Woodstock, Vt.*	15 S. Main St.
Rugg, Harold Ordway	*Fitchburg, Mass.*	17 Hallgarten
Rugg, Robert Billings	*Roxbury, Mass.*	2 Hubbard
Ruggles, Sydney Lee	*Plainfield, N. H.*	2 W. Maple St.
Rutherford, Alva Bruce	*Waddington, N. Y.*	14 Richardson
Rutherford, Seymour Suffee	*Waddington, N. Y.*	14 Richardson
Ruxton, Douglas Donald	*Ludlow, Mass.*	5 Richardson
Ryder, Charles Daniel	*Stamford, Conn.*	22 Fayerweather
Safford, Charles Noah	*Quechee, Vt.*	49 Fayerweather
Sanborn, Benjamin Eugene, Jr.	*Leavitts Hill, N. H.*	21 Fayerweather
Savage, John Dana	*Mattapan, Mass.*	10 Lebanon St.
Schilling, Frederick Edward	*New Britain, Conn.*	12 Reed
Severance, Charles Conant	*Rochester, N. H.*	6 College
Shaw, Arthur Briggs	*Joliet, Ill.*	4 Reed

Name	Residence	Room
Sherburne, Ralph Holmes	*Penacook, N. H.*	23 Fayerweather
Sherburne, Raymond Warren	*Tyngsboro, Mass.*	15 Thornton
Shoninger, Alexander Steinert	*New Haven, Conn.*	21 Richardson
Sides, Arthur Clement	*So. Groveland, Mass.*	10 Maple St.
Skillin, Clarence Percy	*Oak Park, Ill.*	32 Fayerweather
Smith, Porter MacDougall	*Chicago, Ill.*	44 College St.
Snow, Clifton Albert	*Holyoke, Mass.*	16 College
Snow, Harold Hanson	*Dover, N. H.*	4 Crosby
Soule, Arthur Turner	*Somerville, Mass.*	11 Crosby
Speare, Alden True	*Lynn, Mass.*	18 Fayerweather
Spelman, Walter Bishop	*Champlain, N. Y.*	8 Fayerweather
Squier, George Edwin	*Holyoke, Mass.*	6 Fayerweather
Staples, Charles Wells	*Franklin Falls, N. H.*	4 Richardson
Stearns, Malcolm	*Springfield, Mass.*	5 Richardson
Stone, Henry Lewis	*Haverhill, Mass.*	20 Wentworth
Storrs, Edward Dow	*Concord, N. H.*	25 Fayerweather
Stripp, Fred Sheriden	*Charlevoix, Mich.*	27 Hallgarten
Stuart, Arthur Thompson	*Lyndonville, Vt.*	6 Crosby
Sweeney, Edward Flagg	*Somerville, Mass.*	22 College
Symmes, Lawrence Metcalf	*Winchester, Mass.*	28 Reed
Tappan, Stanford Davis	*Hyde Park, Mass.*	3 Sanborn
Tatterson, John Morris	*Biddeford, Me.*	5 Sanborn
Tenney, Allan Gray	*Holliston, Mass.*	28 Fayerweather
Thacher, Russell Sanderson	*Littleton, Mass.*	3 College St.
Thomas, Herbert	*Milford, Del.*	23 S. Main St.
Thompson, John William	*Cleveland, O.*	4 Reed
Thompson, Philip Laforrest	*St. Johnsbury, Vt.*	44 Fayerweather
Thompson, Robert Fears	*Gloucester, Mass.*	6 Crosby
Thorpe, Burton Durrell	*Lisbon, N. H.*	17 Sanborn
Thwing, Albert Warren	*Somersworth, N. H.*	1 Richardson
Titcomb, Frank Elmer	*Farmington, Me.*	9 Pleasant St.
Treadway, Lauris Goldsmith	*Quincy, Ill.*	11 Sanborn
Varney, Thomas Zelno	*Littleton, N. H.*	18 W. Wheelock St.
Vietor, August Frederick	*Lawrence, Mass.*	12 Wentworth
Vincens, Richard George	*Springfield, Mass.*	14 Reed
Walker, Charles Howard	*Portsmouth, N. H.*	17 Richardson
Walker, Raymond	*Edgartown, Mass.*	7 W. South St.
Watson, Henry Ray	*Brookline, Mass.*	25 Richardson
Weston, Arthur	*Mattapan, Mass.*	10 Lebanon St.
Whipple, Howard Franklin	*Brockton, Mass.*	8 Richardson
White, Edgar Fowler	*Danvers, Mass.*	23 N. Main St.
Whitney, Alvin Goodnow	*Groton, Mass.*	40 S. Main St.
Wilson, George Frederick	*Newton, Mass.*	51 Fayerweather
Wilson, Ralph Leslie	*Berlin, N. H.*	33 Fayerweather
Winkley, Willard Choate	*Dover, N. H.*	7 Reed
Winslow, Elisha Freeman	*Norwood, Mass.*	19 College
Woodman, William Hidden	*Haverhill, Mass.*	11 Thornton

Name	Residence	Room
Woodward, Leon Arthur	*East Swanzey, N. H.*	24 Reed
Wooldridge, Reginald	*Melrose, Mass.*	4 Wentworth
Worcester, William Warren	*Hollis, N. H.*	2 Wentworth
Wyman, Arthur Merriam	*Lynn, Mass.*	7 Crosby

SUMMARY

GRADUATE STUDENTS	30
SENIORS	145
JUNIORS	170
SOPHOMORES	257
FRESHMEN	255
TOTAL	857

DISTRIBUTION BY STATES AND COUNTRIES.

MASSACHUSETTS	345	WISCONSIN	2
NEW HAMPSHIRE	217	KANSAS	2
VERMONT	66	MICHIGAN	2
ILLINOIS	51	NEBRASKA	2
NEW YORK	47	DELAWARE	1
MAINE	42	KENTUCKY	1
CONNECTICUT	20	INDIANA	1
OHIO	14	IOWA	1
RHODE ISLAND	8	MARYLAND	1
COLORADO	6	NEW MEXICO	1
MISSOURI	6	SOUTH CAROLINA	1
NEW JERSEY	6	UTAH	1
PENNSYLVANIA	4	VIRGINIA	1
CANADA	3	WASHINGTON	1
DISTRICT OF COLUMBIA	3		

THE LISTS OF STUDENTS IN THE ASSOCIATED SCHOOLS ARE GIVEN AS FOLLOWS:

	PAGE
TUCK SCHOOL	215
THAYER SCHOOL	255
MEDICAL SCHOOL	269
SUMMER SCHOOL	302

REQUIREMENTS FOR ADMISSION

ALL CANDIDATES FOR ADMISSION to college must offer satisfactory testimonials of good moral character; and those who have been members of other colleges must present certificates of regular dismission.

CANDIDATES FOR ADMISSION to the Freshman class in the A.B. COURSE must present satisfactory qualifications in the following subjects, in either group, according to specifications given under each subject:

GROUP I	GROUP II
English	English
History I	History I or II
Mathematics I	Mathematics I
Latin	Latin
Greek	French or German
	Physics, or Chemistry, or Biology

In 1905, and after, the requirements for entrance for the A.B. degree without Greek will be the present requirements of group II, with the addition of one year of the other modern language, or a *second* year of history.

CANDIDATES FOR ADMISSION to the Freshman class in the B.S. COURSE (Chandler Scientific) must present satisfactory qualifications in the following subjects, in either group, according to specifications given under each subject:

GROUP III	GROUP IV
English	English
History I or II	History I or II
Mathematics I	Mathematics I
Mathematics II	Latin, 2 yrs.
French, or German	French, or German
Physics, Chemistry, Biology — two of the three.	Physics, Chemistry, Biology — two of the three.

In 1905, and after, the requirements for entrance for the B.S. degree will be increased as follows: instead of an option between Mathematics II and two years of Latin, as now shown in Group III and IV, a candidate must present *two* of the *four* following subjects: Mathematics II, two years of Latin, two years of the other modern language, or two additional years of History.

REQUIREMENTS IN BRIEF

English. — The New England College Entrance Requirements in reading and study, — three periods per week for four years.

History I. — Greek History to the death of Alexander, and Roman History to the accession of Commodus, — three periods per week for two years, or five periods per week for one year.

History II. — English History and American History, — three periods per week for two years, or five periods per week for one year.

Mathematics I. — Algebra through the binomial theorem for positive integral exponents, and Plane Geometry. Review of Algebra in last year.

Mathematics II. — Algebra through logarithms, Plane and Solid Geometry, and Plane Trigonometry. Review of Algebra.

Latin. — Cæsar, four books; Cicero, six speeches; poetry, 6000 lines; Latin Composition and sight reading.

Latin (two years). — Latin Lessons; Cæsar, four books, with elementary prose composition.

Greek. — Anabasis, four books; 1500 lines of Homer; Greek Composition and sight reading.

French. — Five periods per week for two years. Translation of at least 800 pages into English. French Composition.

German. — Five periods per week for two years. Translation of at least 400 pages into English. German Composition.

Chemistry. — Three periods per week for one year, one-half in laboratory.

Physics. — Three periods per week for one year, with at least forty experiments in laboratory.

Biology.— Three periods per week for one year; Zoölogy one-half year, Botany, one-half year.

SUBJECTS WITH SPECIFICATIONS

ENGLISH

Two sets of books are prescribed for preparation in English, one for reading, the other for more careful study. No candidate will be accepted in English, whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs. The requirement consists of two parts.

I. Reading. — A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and be able to answer simple questions on the lives of the authors; he must also show the ability to write a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may be allowed to present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's The Merchant of Venice and Julius Cæsar; The Sir Roger de Coverley Papers in *The Spectator;* Goldsmith's The Vicar of Wakefield; Coleridge's The Ancient Mariner; Scott's Ivanhoe; Carlyle's Essay on Burns; Tennyson's The Princess; George Eliot's Silas Marner; Lowell's The Vision of Sir Launfal.

In 1906, 1907, 1908. — Shakespeare's Macbeth and The Merchant of Venice; The Sir Roger de Coverley Papers in *The Spectator;* Irving's Life of Goldsmith; Coleridge's The Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Lowell's The Vision of Sir Launfal; George Eliot's Silas Marner.

II. Study and Practice. — This part of the requirement presupposes the thorough study of each of the works named below. The test will be upon subject-matter, form, and structure.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's Macbeth; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

In 1906, 1907, 1908. — Shakespeare's Julius Cæsar; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America; Macaulay's Essay on Milton, and Life of Johnson.

HISTORY (including Historical Geography)

Either of the two following groups, each including two fields of historical study: — [But candidates for the A.B. degree entering with Greek *must* present I].

I. *Greek and Roman History.* — (*a*) Greek History to the death of Alexander, with due reference to Greek life, literature, and art. (*b*) Roman History to the accession of Commodus, with due reference to literature and government.

II. *English and American History.* — (*a*) English History, with due reference to social and political development. (*b*) American History, with the elements of Civil Government.

For preparation in each of the two historical fields presented (*a*) or (*b*) a course of study equivalent to at least three lessons a week for one year (or five recitations for one year for the two fields together) will be necessary.

The preparation and examination call for: (1) such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than 300 pages, supplemented by suitable parallel

readings amounting to not less than 300 pages; (2) geographical knowledge tested by the location of places, movements, or territorial changes on an outline map (by physical features wherever possible, as well as by political features); (3) comparisons between historical characters, periods, or events; (4) in general the exercise of judgment and the power to combine results of reading in orderly fashion. The last two requirements must be met in part by some forms of written work.

The Syllabus of History for Secondary Schools, prepared by a Committee of the New England History Teachers' Association, is recommended as an outline of these courses, giving topics, references, and practical suggestions for carrying into effect the forms of work required above. It is intended to accompany any good text-book.

The American Historical Association through the report of its Committee of Seven, and the New England History Teachers' Association in its Syllabus of History for Secondary Schools have recommended the following course of study in History in all secondary schools.

1st year, Ancient History to 800 A.D.

2nd year, Mediæval and Modern European History.

3rd year, English History.

4th year, American History and Civil Government.

In accordance with these recommendations, examinations will be offered and certificates accepted in Ancient History to 800 A.D. and Mediæval and Modern European History, as the equivalent of the present Group I, when desired.

MATHEMATICS I

Thorough drill in Arithmetic is of vital importance in the study of Mathematics. Facility in the use of integral and fractional numbers should be acquired in the lower grades and retained by the use of numerical examples through the high school course. Short processes and decimals including the metric system should be used habitually. It is assumed that this fundamental work has been done.

Algebra. — The fundamental operations, simple equations with applications to problems involving two or more unknown quantities, the principles of factoring, involution and evolution applied to expressions containing fractional and negative exponents, radicals including imaginaries and radical equations, quadratic equations with applications to problems involving two or more unknown quantities, arithmetical and geometrical progression, ratio and proportion, and the binomial theorem for positive integral exponents.

Plane Geometry — The ordinary propositions relating to rectilinear figures, the measure of angles, proportion and similar figures, regular polygons, circles, areas, constructions and computations involving applications of the more important propositions, original propositions.

MATHEMATICS II

Algebra — Including equations in quadratic form, inequalities, indeterminate equations, proportion, variation, the three progressions, binomial formula for any exponent, convergency of series, undetermined coefficients, and logarithms as treated in a college algebra.

Geometry — Solid Geometry, the ordinary propositions relating to right lines and planes in space, to the measurements of prisms, cylinders, pyramids, cones, frustums, the sphere and portions of its surface and volume, the solution of problems involving the computation and comparison of the surfaces and volumes of the cylinder, cone, frustum of cone, sphere, and their principal inscribed and circumscribed solids.

Trigonometry — Plane Trigonometry, the theory of the functions and their relations so far as to furnish formulae for the computation of the tables and the solution of right and oblique triangles, the use of logarithmic and trigonometric tables in the solution of problems.

LATIN

A knowledge of the Latin language sufficient to enable the student —

I. To translate at sight passages of Latin prose and verse, and to answer questions on ordinary forms, constructions, and idioms, and on prosody.

II. To pass a thorough examination on Cicero's speeches against Catiline, ii, iii, and iv, directed to testing the candidate's mastery of ordinary forms, constructions, and idioms of the language.

III. To translate into Latin prose a passage of connected English narrative, based on some portion of the Latin prose works usually read in preparation for college, and limited to the subject-matter of those works.

Careful attention should be given from the beginning to the correct pronunciation of Latin words, both as to quantity and to syllabication. Such pronunciation greatly aids the study of prosody, and is indispensable to the correct reading of Latin poetry.

The examination, except as stated in II above, will be directed to testing the candidate's knowledge of Latin as a whole rather than his knowledge of special works which he has studied. It is believed that

the study of Latin for four years with five lessons a week, covering an amount equal to four books of Cæsar, six speeches of Cicero, and not less than 4500 lines of Virgil and 1500 lines of Ovid, together with constant attention to Latin composition and to reading at sight, will be sufficient to give the required proficiency.

GREEK

A knowledge of the Greek language sufficient to enable the student —

I. To translate at sight simple passages of Attic prose and to answer questions on ordinary forms, constructions, and idioms.

II. To pass a thorough examination on Xenophon's Anabasis, Book ii, directed to testing the candidate's mastery of ordinary forms, constructions, and idioms of the language.

III. To translate into Greek prose a passage of connected English narrative, based on a passage from Xenophon's Anabasis, Books i and ii.

IV. To pass a thorough examination on 1500 lines of Homer, including questions on prosody. The regular examination will be on the first three books of the Iliad, but candidates who present other parts of Homer will be given a special paper on the Homer presented, if they apply to the Dean four weeks before the examination.

V. To read aloud in the Greek, with correct pronunciation, with full expression of the sense of the passage, and, in poetry, with correct expression of the rhythm.

It is believed that the study of Greek for three years with five hours a week, covering an amount equal to four books of Xenophon's Anabasis and 1500 lines of Homer, together with constant attention to Greek composition and to reading at sight, will be sufficient to give the required proficiency.

Candidates for admission by certificate must present certificates covering Books i and ii of Xenophon's Anabasis, Books iii and iv of the Anabasis or their equivalent in other Attic prose, and 1500 lines of Homer.

FRENCH

I. A thorough knowledge of accidence and a familiarity with the essentials of French Syntax.

II. The ability to translate at sight ordinary French prose into simple, idiomatic English.

III. The ability to translate into French a connected passage of English based on the text read.

IV. The ability to write ordinary French at dictation.

V. The ability to pronounce French well.

The following course of study is suggested as adequate to secure the proficiency desired:

FIRST YEAR — FIVE LESSONS A WEEK

Drill in pronunciation. The rudiments of grammar, including the conjugation of regular verbs and of the more frequent irregular verbs; the inflection of nouns and adjectives (except the rare forms); the uses of articles, pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax. The translation into French of simple English sentences illustrating the common forms and principles of grammar. The reading of 300 duodecimo pages of simple French prose, with constant practice in turning into French easy variations of the text read. Oral translation and writing of French at slow dictation.

The following texts are suggested as suitable reading for the first year: Mérimée's Colomba, Halévy's L'Abbé Constantin, Jules Verne's Le Tour du monde en quatre-vingts jours, About's Le Roi des montagnes, Lamartine's Jeanne d'Arc, Labiche and Martin's Le Voyage de M. Perrichon, Malot's Sans Famille, Legouvé and Labiche's La Cigale chez les fourmis, Erckmann-Chatrian's L'Histoire d'un paysan and Le Conscrit de 1813, Dumas' La Tulipe noire.

SECOND YEAR — FIVE LESSONS A WEEK

By this time the pupil should be familiar with accidence, and the grammar work should be confined to the study of syntax, with composition exercises illustrating its essential rules.

About 550–600 duodecimo pages of French prose of ordinary difficulty should be read, and the pupil should be drilled in pronunciation, in oral and written translations into French of variations of the text read, in oral translation and writing of French from dictation, and, in addition, he should be required to give French paraphrases and abstracts of portions of the reading matter.

The following texts are suggested as suitable reading for the second year: Loti's Pêcheur d'Islande; Augier's Le Gendre de M. Poirier, Balzac's Le Curé de Tours, Coppée's and Daudet's Stories, Molière's

L'Avare and Le Bourgeois gentilhomme, Sandeau's Mademoiselle de la Seiglière, Vigny's La Canne de jonc; Sand's La Mare au diable and La petite Fadette.

GERMAN

I. Ability to pronounce German well.

II. Ability to translate *at sight* a passage of German *prose* of *ordinary difficulty*.

III. Ability to put into German a connected passage of simple English *paraphrased* from a given German text, or to turn simple English sentences into German without a model.

IV. Ability to answer any *grammatical* questions relating to *usual* forms and *essential* principles of the language, including syntax and word-formation.

V. Ability to translate, and to explain, if explanation is called for, a passage of *classical* literature taken from some text previously studied.

The following course of study in German is suggested as adequate to secure the proficiency desired:

FIRST YEAR — FIVE LESSONS A WEEK

(1) *Pronunciation* — Careful attention should be given to the acquisition of a correct pronunciation.

The imitation of the teacher's pronunciation will be the chief factor in the problem; dictation and a knowledge of the rudiments of phonetics will be found very helpful. The attention of the teacher is called to Hempl's German Orthography and Phonology, and to Grandgent's German and English Sounds.

(2) *Memorizing and frequent repetition of easy colloquial sentences* (with variations).

Object — to develop feeling for the language.

(3) *Rudiments of Grammar* (*thoroughly* learned and studied with *exercises*).

Declension of articles, nouns (taken from the language of every-day life), adjectives, pronouns. Comparison of adjectives. Auxiliary verbs (of tense and mood). Weak verbs, more usual strong verbs, more usual prepositions and the cases they govern, more usual conjunctions. Sentence order. Elementary syntax.

Thomas's Practical German Grammar recommended.

(4) *Reading* (narrative prose with some poetry), 150 pages.
either (a) a Reader with graduated selections followed by short stories,
or (b) Märchen and short stories in graduated texts. Storm's Immensee, Zschokke's Der zerbrochene Krug (edition Joynes), Einer Muss Heiraten, and similar stories and plays are recommended.
(5) *Paraphrasing* — Constant practice in translating into German *easy variations* upon sentences in the reading lesson.

SECOND YEAR — FIVE LESSONS A WEEK

(1) *Reading* (narrative prose chiefly, a comedy and one classic), 250–300 pages.

The following course is suggested: —

(a) Short stories — Heyse: L'Arrabbiata (edition Lenz); Riehl: Vierzehn Nothelfer. (b) Selection from historical prose — in Hoffmann's Historische Erzählungen the selection Der deutsch-französische Krieg (edition Beresford-Webb). (c) A comedy — Benedix: Dr. Wespe or Der Prozesz. (d) One classic — Goethe: Hermann und Dorothea. (e) 50 pages of Freytag's prose.

(2) *Paraphrasing* — Constant practice in variations upon texts read.

(3) *Grammar* — (a) Drill upon essentials (continued). (b) Enlargement of grammatical knowledge.

(4) *Word-formation* — Rudiments.

CHEMISTRY

Acquaintance by laboratory work with elementary processes and with the properties of substances common in Chemistry; familiarity with the chemical notation in its experimental and arithmetical meaning, including the ability to solve simple problems based on the relations expressed by formulas and equations; understanding and ability to use correctly the ordinary terms of Descriptive Chemistry. Bartlett's Laboratory Exercises, Parts i–v (exclusive of Class i, Part ii), or equivalent. A certified note-book of laboratory work must be presented at the time of examination. The candidate should have had in addition recitations based upon any good elementary descriptive textbook through the non-metallic and metallic elements.

To meet the above requirement, at least 110 hours of elementary chemistry are necessary, one-half laboratory work, illustrating the

preparation and the properties of the substances ordinarily treated in elementary chemistry. Qualitative Analysis will not be accepted as an equivalent for the laboratory work prescribed.

PHYSICS

The equivalent of at least one hundred and ten one-hour exercises, of which as many as forty should be practical exercises in the laboratory. The student is expected, in the time devoted to the laboratory work, to perform at least forty experiments, and to have kept a neat and orderly record of the same in a note-book, described in his own words. In both recitation and laboratory exercises, some one of the better text-books or manuals for secondary schools should be followed and completed. The note-book should bear the certification of the instructor and be presented for inspection at the time of the entrance examinations to College.

The student should be taught, as far as possible, to apply the simpler principles of Algebra and Geometry to the solution of practical problems in Physics.

BIOLOGY

I. *Zoölogy* — The equivalent of fifty one-hour exercises, consisting mainly of laboratory work in the study of the structure and life-histories of representative animals.

The candidate will be required to present a certified note-book, containing complete records of the conditions under which his observations were made, as well as the observations themselves; also sketches of all the animals, or their organs, that have been studied.

No work necessitating the use of a compound microscope is required.

Work like that outlined in Needham's Elementary Lessons in Zoölogy will be acceptable.

II. *Botany.* — The equivalent of fifty one-hour exercises, consisting mainly of laboratory work on the natural history of plants.

The candidate must present a note-book containing the notes and drawings he has made, and bearing the endorsement of his teacher certifying that the book is a true record of the pupil's own observations. The presentation of an herbarium is not required, and no

weight will be given this evidence of work done unless it illustrates some definite problem in plant relationship.

No work necessitating the use of a compound microscope is required.

Bergen's Elements of Botany or Spaulding's Introduction to Botany. If Gray's lessons are used, they must be supplemented with additional physiology and the use of some such book as Coulter's Plant Relations.

METHODS OF ADMISSION

Every candidate for admission must furnish from the principal of the school which he has attended, or from the tutor with whom he has studied, a testimonial certifying to good moral character and to sufficient preparation for undertaking college work.

Admission to college may be obtained by one of the following methods:—

I. ADMISSION BY EXAMINATION

Two regular examinations for admission to the Freshman Class are held each year, the June examination in the week preceding Commencement and the September examination just before the opening of College.

The *June examination* will be held in Room D, Tuck Building, on June 21, 22, 23, 24. Three hours will be allowed for each examination, unless otherwise specified.

Examinations for admission to the Freshman class (but not to higher classes) will also be held on the above specified days in June, in Manchester, N. H. (High School); St. Johnsbury, Vt. (Academy); Boston (De Meritte School, 30 Huntington Avenue); Worcester (Academy); New York City (Hamilton Institute, 45 West 81st St.); and Chicago (Hyde Park High School); provided that the number of candidates for examination, preliminary or final, in any of the places named shall warrant it. All applications for examinations in June at these places should be made to the Dean before June 10th.

The College is also prepared to hold an examination for admission to the Freshman class (but not to higher classes) on the above-named days in June in any city or at any school where the number of candidates for examination, preliminary or final, and the distance from other places of examination may warrant it, provided that applications for this purpose be made to the Dean before June 1st.

The *September examination* will be held in Hanover *only*, on September 14, 15, 16, 18, in Room D, Tuck Building.

Any one intending to take the examinations must register for such examinations on a form which may be obtained from the Dean. Candidates intending to take the examinations in Hanover must present themselves with their credentials at the Dean's office for registration and admission to the examinations one-half hour before the first examination to be taken.

ORDER OF EXAMINATIONS IN JUNE

Physics, Biology	9.00 A. M.,	June	21
Greek, French, German	3.00 P. M.	"	21
Mathematics I	9.00 A. M.	"	22
Chemistry, Biology	3.00 P. M.	"	22
History I and II	9.00 A. M.	"	23
Latin, Mathematics II	3.00 P. M.	"	23
English	8.30 A. M.	"	24

ORDER OF EXAMINATIONS IN SEPTEMBER

Physics, Biology	3.00 P. M.,	Sept.	14
Greek, French, German	9.00 A. M.	"	15
Chemistry, Biology	3.00 P. M.	"	15
Mathematics I	9.00 A. M.	"	16
History I and II	3.00 P. M.	"	16
Latin, Mathematics II	9.00 A. M.	"	18
English	3.00 P. M.	"	18

Each candidate taking an examination in Chemistry, Physics, or Biology must present a laboratory note-book certified by his teacher. Note-books will be returned to owners at any time within a year.

A candidate for admission may take all the examinations at one time, or he may divide them between June and September of the same year. Certificates will be issued for such subjects as are passed at each examination, and these certificates will be accepted for admission at any time within a year.

A set of recent examination papers will be sent free to any address on application to the Dean.

PRELIMINARY EXAMINATIONS

Candidates for admission are allowed to take examinations on a part of the requirements one year before matriculation, according to the following specifications: —

Mathematics: Algebra or Plane Geometry.

Latin: 1. The translation at sight of simple prose and verse.

2. A thorough examination on Cicero's speeches against Catiline ii, iii, and iv, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Latin prose, involving the use of such words, constructions, and idioms only, as occur in the speeches prescribed.

Greek: 1. The translation at sight of simple Greek prose.

2. A thorough examination on Xenophon's Anabasis, Book ii, directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language; the test to consist, in part, of writing simple Greek prose, involving the use of such words, constructions, and idioms only, as occur in the portion of Xenophon prescribed.

French: Grammar, including composition, and translation of works read during first year, as indicated under the requirements in French.

German: Grammar, including composition, and translation of works, as indicated under the first year requirements in German.

In these examinations no conditions will be imposed, and a failure in any subject will necessitate the re-examination of the candidate in the department to which that subject belongs.

Candidates who have passed the examination will receive certificates for the work done, and these certificates, when presented in the following year, but not later, will be received in place of an examination, in the subjects mentioned in them.

II. ADMISSION BY CERTIFICATE

In place of examinations, certificates will be received from preparatory schools in New England which have been approved by the New England College Entrance Certificate Board; this Board is an association of colleges established for the purpose of receiving, examining, and acting upon all applications of schools in New England which ask for the privilege of certification. This association includes Amherst, Boston University, Bowdoin, Brown, Dartmouth, Mount Holyoke, Smith, Tufts, University of Maine, Wellesley, Wesleyan. Certificates are in all cases passed upon, as heretofore, by the individual college, but students are received on certificate from such

schools only as have been approved by this Board. All schools in New England, which desire the certificate privilege, should apply to the Secretary of the Board, Prof. Nathaniel F. Davis, 159 Brown St., Providence, R. I.

All schools outside of New England, which desire the certificate privilege, should send to the Dean of the Faculty for a printed form of application, containing the conditions for the approval of a school and the requirements which should be met. All applications for approval by the Faculty of the College should be made before *May first.*

Approval of a school will be withdrawn whenever it appears that the work of the school does not reach the standard desired by the College.

No certificate will be accepted from a private tutor.

Certificates should meet the requirements in full, but a certificate will be accepted if it covers two-thirds of the requirements and the candidate will be examined on the remainder; if the certificate fails to cover at least two-thirds of the requirements, the candidate must be examined in full. When a candidate has received his preparation in more than one school, the principal of each school must certify to the work done in his school.

Certificates must be made out on blanks furnished by the Dean of the Faculty, and should be filed at his office before *July first.*

School diplomas will not be accepted for admission to College.

The certificates issued as the result of the examinations, which are held by the College Entrance Examination Board of the Middle States and Maryland will be accepted in so far as they meet the requirements for admission to Dartmouth College.

III. ADMISSION BY REGENTS' CREDENTIALS

Diplomas and sixty count certificates issued by the Regents of the University of the State of New York are accepted in place of examinations in all subjects required for admission which are covered by such credentials.

No other credentials, including pass cards and certificates issued by the Regents are accepted unless they are presented by the holder of a Regents' diploma or sixty count academic certificate.

IV. ADMISSION TO ADVANCED STANDING

Candidates for advanced standing are examined, in addition to the studies required for admission, in those which have been pursued by the class which they propose to enter, or in others equivalent to them. Certificates from schools are not accepted for studies which are offered for advanced standing.

Students from other Colleges, which require the same or equal terms of admission with Dartmouth, and which offer the same or equal courses of study, will be credited with the work for which they bring the record of full standing in their letters of transfer. The following credentials are necessary: a letter of honorable dismissal, a statement of entrance examination, an official detailed statement of the studies pursued for which credit is desired together with standing in same, the exact number of terms of attendance, and a catalogue of the institution marked showing each subject completed.

The privileges of the College are extended to special students who are qualified by age, character, practical experience, and habits of study to profit by college courses. Such properly qualified persons may be admitted as special students upon presenting satisfactory credentials and testimonials, and giving evidence that they are qualified to do specialized work of an advanced character.

The College makes no provision for partial students.

MATRICULATION

After registration and the acceptance of the examination papers or certificates at the office of the Dean, and the payment of the tuition for the first Semester at the office of the Treasurer, the student will receive his matriculation papers from the President of the College.

CREDIT FOR WORK OUTSIDE OF COLLEGE COURSES

No time credit for work outside the College courses shall be allowed without examination.

Time credit for work done outside the College courses, and offered

as an equivalent for College work, may be allowed after the applicant has passed an examination in the course for which he wishes credit.

The omission of elementary courses in any department, without time credit, and admission to more advanced courses in the same department, may be permitted without examination in cases in which certification admits to advanced courses : in other cases only upon examination.

The substitution of a course in one department for a required course in another department can be permitted only upon a satisfactory examination in the required course.

GRADUATE STUDENTS

Graduates of this or any other college, desirous of pursuing their studies in residence, without reference to a degree, may attend the public lectures of the College, and use the library, laboratories, apparatus, and scientific collections, subject to such rules as the Faculty may establish.

Applicants for an advanced degree, whether resident or non-resident, are required to announce to the President on a blank which will be furnished by the Dean of the Faculty on application, as early as the first of October of each year, the particular branches of study to which they wish to give attention during the year, together with all needed statistics and facts. The supervision of their work will then be entrusted to the Committee on Graduate Instruction, to whom all inquiries for further details should be addressed.

COURSES OF INSTRUCTION

The courses of instruction offered lead to the degree of Bachelor of Arts or of Bachelor of Science (Chandler Scientific Course).

Students who entered as candidates for the degree of Bachelor of Letters, previous to the abolition of that degree, may graduate as Bachelors of Letters, or may secure the degree of Bachelor of Arts or Bachelor of Science, by meeting the requirements indicated under the "Group System."

GROUP SYSTEM OF STUDIES

In this system the different departments of instruction are arranged under three groups, namely, "Language and Literature," "Mathematics and the Physical and Natural Sciences," and "History, the Social Sciences, and Philosophy," as follows: —

GROUP I	GROUP II	GROUP III
LANGUAGE AND LITERATURE	MATHEMATICS AND THE NATURAL AND PHYSICAL SCIENCES	HISTORY, THE SOCIAL SCIENCES, AND PHILOSOPHY
Comprising the Departments of	*Comprising the Departments of*	*Comprising the Departments of*
Greek	Mathematics	History
Latin	Graphics	Modern History
English	Engineering	The Far East
French	Physics	Economics
Spanish	Astronomy	Political Science
Italian	Chemistry	Sociology
German	Biology	Philosophy
Philology	Anatomy and Physiology	Education
	Geology	Music
	Mineralogy	Archæology
		Biblical Literature

The courses in each department of instruction are graded as A, B, or C; A being the lowest, and C the highest. An A course usually

signifies the first or second year's work in College; a B course, the second or third year's work; a C course, the third or fourth year's work.

The Group System requires electives in certain departments of study, designated as Majors and Minors.

A Minor study consists of at least twelve semester hours in one department; six semester hours in each of two grades, A, B, or C. A Major study consists of at least eighteen semester hours in one department; at least six semester hours in each grade A, B, and C. In certain cases a Major or a Minor is made up from a combination of courses in the different departments, as indicated under "Departments of Instruction."

Any exceptions to the above requirements in number of hours, or in the limitations to a single department, will be found after the description of courses in those departments in which exceptions are made.

Courses graded as "B or C" count as B courses when only the regular work of the course is required, but may count as C courses when additional work is assigned by the instructor.

REQUIREMENTS FOR BACHELOR'S DEGREE

The Group System requires that a candidate for the Bachelor's degree must complete a Major study in one of the three groups, and a Minor study in *each* of the other two groups. A candidate for the B.S. degree, however, must also have completed two years of Physics, or of Chemistry, or of Biology, and one year of *each* of the other two, except that those students who take their Senior year in the Thayer School may substitute Mathematics or Graphics for Biology.

The requirement for a Minor in Group III. for those taking their senior year in the Thayer School will be met by History I and II, and six more semester hours in that group.

An average rank of 60 is required for the group of courses presented by a student for his Major.

For the Bachelor's degree fifteen (15) hours per week in each semester are required, — the whole amounting to one hundred and twenty semester hours. One hundred and twenty-two (122) semester hours are required of all classes to and including the class of 1907.

After Freshman year, a student having no deficiency in his record

and having an average of not less than 70 per cent for the previous semester may elect 18 hours; no exceptions to this rule will be granted except on written petition to the Committee of Administration. Students who have exceeded the required number of hours in previous years may elect as few as 12 hours in each semester of Senior year, provided the total number of hours for the four years meets the requirement for a degree.

In Freshman year the studies are mainly prescribed. Candidates for the A. B. degree must continue the subjects presented for entrance, except History. Those presenting Greek must continue Greek, Latin, English, Mathematics, and choose between French and German. Those entering without Greek must continue the French or German presented, must begin Greek, German or French, and must continue Latin, English, and Mathematics. Candidates for the B. S. degree must continue the French or German presented, must begin Greek, German or French, must continue English and Mathematics, and must choose one of the five following: Graphics, Chemistry, Biology, Physics, History. Studies elected for Freshman year become prescribed and must be completed to secure a degree.

Members of the Chandler Scientific Course may substitute for the elective studies of Senior year the work of the first year in the Thayer School of Civil Engineering. They may be candidates for the degree of Bachelor of Science with their class, and after a second year of work in the Thayer School they may receive the degree of Civil Engineer. The conditions for such an election will be found under the Thayer School of Civil Engineering.

Candidates for either Bachelor's degree offered by the College who have met the requirements in electives and in rank, as outlined on page 225, under Conditions for Admission to the Tuck School of Administration and Finance, may elect the first-year course in the Tuck School for their work of Senior year. At the close of the year, they may graduate from the College with the Bachelor's degree for which they entered. After a year of graduate study in the Tuck School, they may receive the degree of Master of Commercial Science. The conditions for such an election may be found under the Tuck School.

Students who intend to enter the Medical Department may receive credit for the first year of the medical course by electing such studies as are prescribed for that year, and by registering in the Medical School at the opening of Senior year. The conditions for such an election will be found under the Medical School.

RULES GOVERNING THE ELECTION OF STUDIES

(1) Every student, in making his elections, must meet the requirements and conform to the conditions of the studies he may choose, as set forth in the "Departments of Instruction," and in the "Outline of Studies." The choice of any elective involves the same requirement in respect to attendance and scholarship as for a prescribed study.

(2) Elections for the second Semester must be communicated to the Dean, in writing, on or before January 10, and for the first Semester on or before June 1.

(3) Fifteen hours per week in each semester must be elected by each student except by Seniors who have exceeded the required number of hours in previous years; such Seniors may elect as few as twelve hours in each semester provided the total number of hours for the four years meets the requirement for a degree. A student having no deficiency in his record and having an average of not less than 70 per cent for the previous semester may elect eighteen hours.

(4) Students who take their Senior year in the Tuck School or the Medical School are required to elect eighteen hours per week.

(5) A student may elect studies assigned to a class below his own, subject to the approval of the instructor concerned, but no student will be allowed to elect a study with a class above his own, except by vote of the Committee on Administration.

(6) Any student failing to make his elections at the specified time shall pay into the College Treasury three dollars.

(7) No student will be allowed to change his elections, except by special permission of the Dean, when found to be necessary, and after the payment of two dollars into the College Treasury.

(8) The Faculty will ordinarily withdraw any elective study not chosen by at least four students.

A student in making his elections for Sophomore year should indicate in which *group* he intends to secure a Major, and in making his elections for Junior year should indicate the *departments* in which he intends to secure his Major and his two Minors.

To secure credit for a Minor study in any department, a student must complete courses in that department amounting to six hours in courses graded A, and six hours in courses graded B.

To secure credit for a Major study in any department, a student must complete courses in that department amounting to six hours in courses graded A, six hours in courses graded B, and six hours in courses graded C.

Any exceptions to the above requirements in number of hours, or in the limitations to a single department, will be found after the description of courses in those departments in which exceptions are made.

DEPARTMENTS OF INSTRUCTION

GREEK

I

GREEK LITERATURE

1. *Beginners' Course.*

Professor HUSBAND. First Semester, 3 hrs.

Grammar and Reader. A course for students who entered without Greek, and who wish to begin it in College.

2. *Beginners' Course (continued).*

Professor HUSBAND. Second Semester, 3 hrs.

Selections from Xenophon's *Anabasis* and from other Attic Prose Authors. Prose Composition.

3. *Elementary Reading Course.* A

Professor C. D. ADAMS. First Semester, 3 hrs.

Selections from Attic Prose. Systematic study of Syntax.

A course in Sophomore year for students who took courses 1 and 2 in Freshman year.

4. *Homer, Elementary Course.* A

Professor HUSBAND. Second Semester, 3 hrs.

Selections from the *Iliad.* Introduction to Homeric language and verse. To follow course 3.

5. *Xenophon and Plato.* A

Professors C. D. ADAMS and G. D. LORD. First Semester, 3 hrs.

Selections from Xenophon's *Memorabilia.* Plato, *Apology.* Freshman course.

6. *Euripides and Lysias.* A

Professors C. D. ADAMS and G. D. LORD.

Second Semester, 3 hrs.

(*a*) Euripides, *Medea* and *Alcestis*. Introduction to Greek Drama. This course is given to Division I of the Freshman class.

(*b*) Lysias, Selected Orations. Studies in Greek History and Antiquities. This course is given to Division II of the Freshman class.

7. *Plato.* B or C

Professor C. D. ADAMS. First Semester, 3 hrs.

The *Phædo* and selections. Introduction to Platonism. Collateral reading in the History of Greek Philosophy.

8. *Demosthenes.* B or C

Professor C. D. ADAMS. Second Semester, 3 hrs.

De Corona. The reading course is preceded by a careful study of the history of Greece from the close of the Peloponnesian War to the death of Alexander, with lectures upon the significance of the struggle with Philip. The oration is studied with special emphasis upon its rhetorical features.

9. *Sophocles.* B or C

Professor HUSBAND. First Semester, 3 hrs.

Œdipus Tyrannus. Lectures on the development of Greek Drama.

10. *Aristophanes.* B or C

Professor HUSBAND. Second Semester, 3 hrs.

The *Acharnians* and the *Clouds* will be read in the original, and other comedies in translation, to ascertain the attitude of comic writers and the people toward public officials and current events. One comedy will be analyzed carefully as an example of the literary structure of a comedy.

11. *Æschylus.* C

Professor G. D. LORD. First Semester, 3 hrs.

The *Oresteia.* The three dramas will be studied in part by class translation, and in part by reading and lectures by the instructor. Lectures on dramatic criticism.

12. *Epic Poetry.* C

Professor G. D. LORD. Second Semester, 3 hrs.

The *Iliad* and the *Odyssey* will be read, partly in English versions with the purpose especially of cultivating literary appreciation of each poem as a whole in the form in which we now have it. Special problems in theories of the European origin of the poems will be discussed and a condensed history of Homeric Criticism will be given.

Courses 12 and 12a are offered in alternate years.

12a. *Elegiac, Iambic, and Lyric Poets.* C

Professor G. D. LORD. Second Semester, 3 hrs.

Reading of selections. Historical studies in selected odes of Pindar.

[Offered in 1905–1906.]

13. *Greek Oratory.* C

Professor C. D. ADAMS. First Semester, 3 hrs.

Studies in the development of Greek Rhetoric and Oratory. Lectures and exercises in rhetorical criticism. The class will read selections from Gorgias, Isocrates, the Rhetoric of Aristotle, and the works of some of the later rhetoricians; they will also study some of the speeches of Antiphon, Lysias, and Demosthenes.

14. *History of Greek Literature.* C

Professor C. D. ADAMS. Second Semester, 3 hrs.

Lectures upon the development of Greek Literature and its relation to the political and artistic development of the Greek people. Rapid reading of selections from some authors not included in the preceding courses.

II

GREEK LANGUAGE

15. *Sight Translation and Composition.* B

Professor HUSBAND. First Semester, 1 hr.

The aim will be to gain facility in grasping the development of thought in a sentence and in a paragraph. Translation at hearing. Murray's *Greek Prose Composition.*

16. *Sight Translation and Composition.* B

Professor HUSBAND. Second Semester, 1 hr.

Continuation of Course 15. Systematic study of the Cases, Adjectives, Pronouns, and Prepositions.

17. *Composition.* B

Professor HUSBAND. First Semester, 1 hr.

Systematic study of the Tenses and of the Moods in independent clauses. Study of idioms and points of style in some one of the prose authors already read. Gildersleeve's *Syntax of Classical Greek* (Part I, 1900). Continuation of Course 16.

18. *Composition.* B

Professor HUSBAND. Second Semester, 1 hr.

Continuation of Course 17. Study of the particles and of the Moods in subordinate clauses. Goodwin's *Moods and Tenses.*

20. *Historical Greek Grammar.* C

Professor HUSBAND. Second Semester, 3 hrs.

Pronunciation, syllabification, history of inflections, reading and interpretation of inscriptions of each dialect, particularly in their application to the language of Homer. Linguistic analysis of a portion of the *Iliad.* Open to Juniors and Seniors who have continued their work in Greek through Sophomore year.

Students who have taken two courses of the group 7, 8, 9, 10, may count the other two as C courses by doing work prescribed by the instructor in addition to that required of the rest of the division.

For courses in Greek Archæology, see Archæology 1, 3, 3a, and 4.

LATIN

1. *Livy.* A

Professors J. K. LORD, MOORE, and BURTON. First Semester, 3 hrs.

Selections from Books XXI and XXII, with reading at sight from Book I.

2. *Horace and Terence.* A

Professors J. K. LORD, MOORE, and BURTON. Second Semester, 3 hrs.

Selected *Odes* of Horace; the *Adelphi* of Terence will be read by the class, and one or more plays will be read to the class by the instructor. Lectures will be given on the Roman Theatre and the production of plays.

3. *Tacitus and Catullus.* B

Professor BURTON. First Semester, 3 hrs.

The *Agricola* and *Germania* of Tacitus; lectures on Roman Britain, and on the Teutonic nations; selected poems of Catullus.

4. *Pliny and Martial.* B

Professor BURTON. Second Semester, 3 hrs.

A selection from the *Letters* of Pliny the Younger, and the *Epigrams* of Martial.

5. *Roman Life.* A or B

Professor BURTON. First Semester, 3 hrs.

This course is intended both for students of Latin and for others who are interested in ancient Rome and in the public and private life of the Romans. There will be lectures on the geography and peoples of Italy; the topography and public buildings of Rome; the private house and its furnishings; the daily life of the Roman citizen, his wife, children, and slaves; education and athletic sports; handicrafts and commerce; the law-courts; the political organization of the state; the army and navy. The lectures will be illustrated by means of diagrams, pictures, and lantern slides. A considerable amount of sup-

plementary reading will be required and a short thesis on some special subject of investigation. Knowledge of Latin is not required.

Open to Sophomores, Juniors, and Seniors. This course counts as an A course for those who have not had Latin in College.

6. *Tacitus.* B

Professor MOORE. Second Semester, 2 hrs.

The *Histories* of Tacitus, with special reference to the style of the historian.

[In 1905–1906 a course in Roman History, open to Sophomores, Juniors, and Seniors, will be offered in place of the above.]

7. *Latin Composition.* B

Professor MOORE. First Semester, 1 hr.

The passages will be chiefly from the *De Amicitia* of Cicero, a part of which will be read at sight in the class-room. This is an elementary course, and its main object is to give instruction and drill in the principles of Latin grammar, and the correct method of reading.

8. *Latin Composition.* B

Professor MOORE. Second Semester, 1 hr.

Continuation of Course 7.

9. *Latin Composition.* C

Professor J. K. LORD. First Semester, 1 hr.

A careful study of the idioms, constructions, and principles of arrangement in Latin composition will be made in connection with translations into Latin of passages based upon assigned portions of Latin authors, and of imitations of other portions set as models.

[Offered in 1905–1906.]

10. *Latin Composition.* C

Professor J. K. LORD. Second Semester, 1 hr.

This course is a continuation of Course 9.

11. *Cicero.* C

Professor J. K. LORD. First Semester, 3 hrs.

De Oratore. The course will follow the development of Roman oratory and Cicero's theory of oratory. Lectures, and criticisms of special speeches. Each student will be required to study carefully a speech of Cicero and to prepare and to read before the class an essay upon it.

Courses 11 and 11a are offered in alternate years.

11a. *Latin Literature.* C

Professor J. K. LORD. First Semester, 3 hrs.

Selections from different authors illustrating the development of the literature. Lectures will be given upon the literature and upon individual authors, and essays and reports upon subjects assigned for special study in connection with the course will be required of the students.

[Offered in 1905–1906.]

12. *Horace.* C

Professor J. K. LORD. Second Semester, 3 hrs.

The *Satires* and *Epistles* of Horace, with special reference to the social life of the times.

Courses 12 and 12a are offered in alternate yea

12a. *Seneca.* C

Professor J. K. LORD. Second Semester, 3 hrs.

The *Essays* and *Epistles* of Seneca.

[Offered in 1905–1906.]

13. *Lucretius.* C

Professor MOORE. First Semester, 3 hrs.

Selections from the *de Rerum Natura.*

Courses 13 and 13a are offered in alternate years.

13a. *Vergil.* C

Professor BURTON. First Semester, 3 hrs.

Translation and discussion of parts of each work. Investigation of the following subjects: epic, didactic, and pastoral poetry before Vergil; the life of Vergil; his sources and the influence of other writers upon him; the mediæval conception of Vergil.

[Offered in 1905–1906.]

14. *Roman Satire.* C

Professor BURTON. Second Semester, 3 hrs.

The development of this form of literature will be considered in its various phases. The class will read selections from Merrill's *Fragments of Roman Satire* and some of the *Satires* of Horace, Persius, and Juvenal.

16. *Justinian.* C

Professor MOORE. Second Semester, 2 hrs.

The *Institutes* of Justinian, with select passages from Gaius and the *Digest.*

18. *Historical Latin Grammar.* C

Professor HUSBAND. Second Semester, 3 hrs.

History of the alphabet, pronunciation, syllabification, development of sounds and inflections. Allen's *Remnants of Early Latin* will be interpreted as a basis for the history of forms. This will be supplemented by readings from Lindsay's *The Latin Language.* Open to Juniors and Seniors who have continued their work in Latin through Sophomore Year.

19 and 20. *Latin Grammar.*

Professor HUSBAND. First and Second Semesters, 3 hrs.

The history of Latin sounds and inflections; investigation in pronunciation and accent; the reading of a considerable body of early Latin in the light of comparative grammar. Lindsay's *The Latin Language,* Brugmann's *Vergleichende Grammatik* and Allen's *Remnants of Early Latin* will be most frequently used.

Open only to graduate students.

21 and 22. *The Philosophical Works of Cicero.*
Professor MOORE. First and Second Semesters, 2 hrs.

Open only to graduate students.

ENGLISH

I

COMPOSITION, RHETORIC, AND CRITICISM

1 and 2. *English Composition and Rhetoric.* A
Messrs. SANBORN, CHAMBERLAIN, and MCKENNIS.
First and Second Semesters, 2 hrs.

An introduction to the study of Rhetoric, with the preparation and criticism of themes, and constant reference to printed examples of correct and incorrect style. (Pearson's *Principles of Composition*, Hill's *Principles of Rhetoric*, Newcomer's *Elements of Rhetoric*.)

3. *English Composition and the Elements of Style.* B
Mr. SANBORN. First Semester, 3 hrs.

This course is designed to acquaint the student with the finer elements of style, both in prose and in verse, and to enable him to use his knowledge in effective literary expression. Daily reports and weekly themes, based upon a wide range of assigned readings.

4. *Composition and Analysis.* B
Mr. SANBORN. Second Semester, 3 hrs.

This course is a continuation of Course 3, and is open only to such students as have completed that course.

5. *Advanced English Composition.* B
Mr. CHAMBERLAIN. First Semester, 3 hrs.

Daily and weekly themes. This course is open to such Seniors and Juniors as are competent to pursue and profit by the course. (Baldwin's *A College Manual of Rhetoric*.)

6. *Criticism of Literature.* C

Mr. CHAMBERLAIN. Second Semester, 3 hrs.

A survey of the history of criticism from Aristotle to the present, for the purpose of establishing literary canons and of testing these canons by application to typical literary masterpieces. The course will be conducted by the Socratic method.

II

ORATORY AND ARGUMENTATION

8. *Oratory.* A

Professor LAYCOCK and Mr. MCKENNIS. Second Semester, 1 hr.

A course in the elements of Public Speaking with weekly declamations and orations.

9. *Argumentative Composition and Oratory.* B

Professor LAYCOCK and Mr. MCKENNIS. First Semester, 3 hrs.

Lectures, Recitations, Briefs, and Forensics, with daily practice in the application of rhetorical and oratorical principles to argumentation. (Laycock and Scales' *Argumentation and Debate.*)

10. *Argumentative Oratory.* B

Professor LAYCOCK and Mr. MCKENNIS. Second Semester, 3 hrs.

This is a continuation of Course 9, and is open only to such students as have passed in that course. It will consist of the preparation of numerous briefs and forensics for debate, and daily practice in Oratorical Argumentation.

11. *Voice Culture and History of Oratory.* C

Professor LAYCOCK. First Semester, 3 hrs.

Lectures, Recitations, and Exercises in Voice Culture. Theses will be written and delivered before the class by the students in this course. (Hardwicke's *History of Oratory and Orators.*) Open only to those who have had English 9 and 10.

Courses 11 and 13 are offered in alternate years.

13. *Forensic Oratory.* C

Professor LAYCOCK. First Semester, 3 hrs.

This course is planned especially for those who expect to become lawyers. (Robinson's *Forensic Oratory.*) Open only to those who have had English 9 and 10.

[Offered in 1905–1906.]

III

LITERATURE AND PHILOLOGY

15. *English Literature.* B

Professor C. F. RICHARDSON. First Semester, 3 hrs.

Lectures, with assignments of readings and daily illustrations from representative authors. This course is designed to set forth the philosophy of literature, and the relation of writers to their predecessors and contemporaries.

History 1 and 2 are prerequisites for this course.

16. *American Literature.* B

Professor C. F. RICHARDSON. Second Semester, 3 hrs.

Lectures, recitations, and daily readings from representative authors, with discussions tending toward the development of independent critical power. (Richardson's *American Literature.*)

English 15 is a prerequisite for this course.

17. *Old English.* C

Professor HARDY. First Semester, 3 hrs.

Essentials of phonology and accidence. Reading of selections, mainly prose. (Bright's *Anglo-Saxon Reader.*)

This course is open to such Seniors and Juniors as have attained an average rank of 75 in all their previous English courses.

19. *English Lyric Poetry.* C

Professor C. F. RICHARDSON. First Semester, 3 hrs.

Lectures on the unity of the arts, and on the principles of versification. (Palgrave's *Golden Treasury.*)

This course is open only to Seniors.

20. *Middle English.* C

Professor C. F. RICHARDSON. Second Semester, 3 hrs.

Lectures on pre-Chaucerian grammar; and selections from the *Canterbury Tales.*

This course is open to such Seniors and Juniors as have attained an average rank of 75 in all their previous English courses, or have taken English 17.

21. *The English Drama.* C

Professor EMERY. First Semester, 3 hrs.

Lectures on the history of the Drama, from the Miracle Plays to the Closing of the Theatres, with constant reading, and oral and written criticism of the plays considered.

[Not offered in 1904–1905.]

22. *Shakespeare.* C

Mr. CHAMBERLAIN. Second Semester, 3 hrs.

A seminar course in the periods of Elizabeth and James the First, adapted to the needs of undergraduate students of English.

ROMANCE LANGUAGES

FRENCH

I

GRAMMAR AND TRANSLATION

1. *First Year Course.*

Professors DOW and LANGLEY and Mr. WESTON.

First Semester, 3 hrs.

Pronunciation; elements of grammar with oral and written exercises to illustrate their application; translation and sight-reading of easy French prose (Mérimée, *Colomba*); memorizing and simple paraphrasing in French of portions of the text read.

2. *First Year Course.*

Professors DOW and LANGLEY and Mr. WESTON.

Second Semester, 3 hrs.

Continuation of Course 1. Translation and sight-reading of simple French prose. (Mérimée, *Contes;* Dumas, *La Tulipe Noire;* short stories of Halévy, Margueritte, Maupassant, and others.) Easy oral and written exercises in dictation.

Courses 1–2 are prescribed for Freshmen in the Chandler Scientific Course who do not offer French for admission to College, and for Freshmen in the A.B. Course who do not elect German and who are not eligible to a higher course. Either course may be elected after Freshman year, by students in the A.B. Course not entitled to enter a more advanced course. A separate division (known as French 1–2 advanced) made up of students who have had a slight preparation in French will be formed for the sake of pursuing somewhat more advanced work than that of the other divisions.

3. *Second Year Course.* A

Professor TAYLOR and Mr. WESTON. First Semester, 3 hrs.

Translation and sight-reading of ordinary French prose (About, *le Roi des Montagnes;* Dumas, *Monte-Cristo;* Mérimée, *Chronique du règne de Charles IX, etc.*). Grammar, composition, and dictation.

4. *Second Year Course.* A

Professor TAYLOR and Mr. WESTON. Second Semester, 3 hrs.

Continuation of Course 3. Vigny, *la Canne de jonc;* Hugo, *Quatre-vingt-treize;* Balzac, *Eugénie Grandet*; and several modern French comedies.

5. *Third Year Course.* A

Professors DOW, TAYLOR, and LANGLEY, and Messrs. SKINNER and WESTON. First Semester, 3 hrs.

A careful review of syntax (Fraser and Squair's Grammar) with practice in writing in French connected passages of English based upon a French model; translation and sight-reading of more difficult modern French prose and poetry, with grammatical analyses involving a more thorough knowledge of syntax; dictations in French.

6. *Third Year Course.* A

Professors DOW, TAYLOR, and LANGLEY, and Messrs. SKINNER and WESTON. Second Semester, 3 hrs.

Continuation of Course 5. Reading of prose of the nineteenth century together with some comedies of Molière toward the end of the year. (Hugo, *Notre-Dame de Paris;* Zola, *La Débâcle;* Labiche, *La Cagnotte;* Augier, *Le Gendre de M. Poirier;* Molière, *Le Bourgeois gentilhomme, Le Médecin malgré lui.*) Composition, syntax, and dictation.

Courses 5–6 are prescribed for Freshmen who offered two years of French for admission to College. They may be elected by students who have passed in Courses 3–4 or by those who have had an amount of French equivalent to the requirements for admission to the Chandler Scientific Course.

II

COMPOSITION AND CONVERSATION

7–8. *Elementary Courses.* B

Professor TAYLOR. First and Second Semesters, 2 hrs.

French Review Exercises, Marcou, and *French Prose Composition*, Baillot, will be used as text-books. Writing from dictation and sight-composition. Open to students who have passed in Courses 3–4, or in the *advanced* division of Courses 1–2.

9–10. *Advanced Courses.* B

Professor DOW. First and Second Semesters, 2 hrs.

François's *Advanced French Composition.* Practice in speaking and writing French. Dictations, readings, and talks in French. The aim of the course is to enable the student to understand readily spoken French, to train him in the use of common idioms, and to familiarize him with the characteristic features of French public and private life, as subject-matter for conversation. Open to students who have passed in Courses 5–6 or 7–8, and to such other students as may satisfy the instructor of their ability to do the work of the course.

III

LITERATURE

11. *General Survey of French Literature.* B

Messrs. SKINNER and WESTON. First Semester, 3 hrs.

In this course students will be given an opportunity to become acquainted with many of the literary masterpieces produced in France during the last three centuries, and at the same time to form some idea of the development of French literature from its beginnings to the present day. Works of the following authors will be read in the classroom: Corneille, Racine, Molière, La Fontaine, Descartes, and Pascal. In addition there will be required a considerable amount of collateral reading. Open to students who have passed Courses 3-4, 5-6, and, by permission of the instructor, to such others as may be able to do the work of the course.

12. *General Survey of French Literature.* B

Messrs. SKINNER and WESTON. Second Semester, 3 hrs.

Continuation of Course 11. Special attention in this course will be paid to authors of the eighteenth and nineteenth centuries. The class will read selections from the works of Voltaire, Rousseau, Beaumarchais, Chénier, Chateaubriand, Hugo, Alfred de Musset, Alfred de Vigny, Th. Gautier, George Sand, Balzac, Leconte de Lisle, Flaubert, Taine, Renan, Verlaine, Heredia, and Sully-Prudhomme.

13. *Seventeenth Century Literature.* C

Professor DOW. First Semester, 3 hrs.

A study of the origin and development of the various forms, with particular attention to the classic French theatre. Reading in class of the masterpieces of Corneille, Pascal, Racine, Molière, La Fontaine, and Boileau. Lectures, themes, collateral reading, and reports. Open to those students who have passed in Courses 11-12, and to such others as may satisfy the instructor of their ability to do the work of the course.

14. *Seventeenth Century Literature.* C

Professor DOW. Second Semester, 3 hrs.

Continuation of Course 13.

15. *Eighteenth Century Literature.* C

Mr. SKINNER. First Semester, 3 hrs.

This course will be devoted chiefly to the study of Voltaire and Rousseau as embodying the ideas which had important bearing upon the French Revolution. Attention will be given also to Montesquieu, Buffon, Diderot, and the Encyclopedists. Later in the year the theatre of the eighteenth century and the development of the novel will be studied. In addition to lectures and readings in the class-room, a considerable amount of collateral reading of contemporary memoirs and correspondence will be required. Open to those students who have passed in Courses 11–12, and to such others as may satisfy the instructor of their ability to do the work of the course.

16. *Eighteenth Century Literature.* C

Mr. SKINNER. Second Semester, 3 hrs.

Continuation of Course 15.

[Courses 15 and 16 offered in 1905–1906.]

17. *Nineteenth Century Literature* C

Professor LANGLEY. First Semester, 3 hrs.

A study of the French and the foreign origins of romanticism in France; of the conflict between romanticism and classicism; of the origin and growth of realism; of the influence of the Northern literatures in France, and of the more recent movements in French literature. Pellissier's *Mouvement littéraire au XIX^e siècle* will be used as a hand-book. Lectures, reading in class, themes, collateral reading, and reports. Open to those students who have passed in Courses 11–12, and to such others as may satisfy the instructor of their ability to do the work of the course.

18. *Nineteenth Century Literature.* C

Professor LANGLEY. Second Semester, 3 hrs.

Continuation of Course 17.

19. *Sixteenth Century Literature.* C

Professor TAYLOR. First Semester, 3 hrs.

This course is a study of the language and literature of France during the period of transition from mediæval to modern times.

There will be introductory lectures upon the language and literature of the Old French period, followed by critical readings of Marot, Ronsard, Rabelais, Montaigne, and other representative writers of the Renaissance period. *Le Seizième Siècle*, Darmestetter-Hatzfeld (Paris, 1893), will be used as a hand-book. Open, after consultation with the instructor, to those students who have had any one of the other literature courses.

20. *Sixteenth Century Literature.* C

Professor TAYLOR. Second Semester, 3 hrs.

Continuation of Course 19.

In French a Minor is obtained by taking Courses 11–12 together with 7–8 or 9–10 in addition to 3–4 or 5–6; a Major by taking, in addition to the requirement for a Minor, one of 13–14, 15–16, 17–18, 19–20.

SPANISH

1–2. *Elementary Courses.* A

Mr. SKINNER. First and Second Semesters, 3 hrs.

Elementary Course in grammar, composition, and reading. The object of the course is to enable the student at the end of the year to translate easy English into Spanish, and to read with little difficulty modern prose.

The text-books used will be as follows: Giese, *A First Spanish Book;* Ramsey's *Spanish Grammar;* Padre Isla, *Gil Blas;* Alarcón, *El Capitán Veneno;* Galdós, *Doña Perfecta;* Moratín, *El Sí de las Niñas.*

Students are not allowed to elect Spanish 1 and 2, and Italian 1 and 2 in the same year. Spanish 1 will not count toward a degree without Spanish 2.

3–4. *Advanced Courses.* B

Mr. SKINNER. First and Second Semesters, 3 hrs.

In the first part of the year grammar study and composition will be continued. In reading, attention will first be paid to the more important contemporary writers, and afterwards to the classic authors

of the sixteenth and seventeenth centuries. The whole or parts of the following works will be read: Alarcón, *Historietas Nacionales;* Solis, *La Conquista de Méjico;* Cervantes, *Don Quixote;* Calderón, *El Alcalde de Zalamea; El Lazarillo de Tormes.* In addition, parts of Ticknor's *History of Spanish Literature* will be read.

ITALIAN

1. *Elementary Course.* A

Professor LANGLEY. First Semester, 3 hrs.

Elementary course in grammar, composition, and reading.

Text-books to be used: Grandgent's *Italian Grammar* and *Italian Composition;* Bowen's *Italian Reader;* Goldoni's *Il vero amico;* Manzoni's *I promessi sposi;* Barrili's *Una notte bizzarra.*

2. *Dante's Divina Commedia.* A

Professor LANGLEY. Second Semester, 3 hrs.

(Scartazzini's one volume edition.) Translation and interpretation of the *Inferno.* Lectures and collateral readings.

To count for a degree both of the above courses must be taken. Students are not allowed to elect Italian 1 and 2 and Spanish 1 and 2 the same year.

4. *Rapid Reading Course.* A

Professor LANGLEY. Second Semester, 2 hrs.

This course will give, in addition to training in rapid reading, a survey of representative works of modern Italian literature taken in the following order: (a) prose: Manzoni, Pellico, Serào; (b) drama: Alfieri; (c) lyric poetry: Foscolo, Leopardi. Open to students who have had Course 1.

5. *Italian Literature of the Fourteenth Century.* B

Professor LANGLEY. First Semester, 3 hrs.

Continuation of Dante; representative selections from the *Rime* of Petrarch (Carducci's edition), and the *Decamerone* of Boccaccio (Fornaciari, *Novelle scelte*). A study of the literature of the period, using as text-book Gaspary's *Storia della letteratura italiana;* lectures and collateral readings.

6. *General Survey of the Literature of the Renaissance.* B

Professor LANGLEY. Second Semester, 3 hrs.

Representative works of the following authors: Poliziano, Machiavelli, Bembo, Ariosto, Berni, Cellini, Vasari, Guarini, Tasso. As text-book D'Ancona e Bacci, *Manuale della letteratura italiana*, vols. 2 and 3. Lectures and collateral readings.

Courses 5 and 6 are open only to those who have passed in Courses 1 and 2.

GERMAN

1–2. *Elementary (First Year).*

Professors W. A. ADAMS, HARDY, Messrs. GOULD and ANDREWS.

First and Second Semesters, 3 hrs.

(a) Pronunciation, (b) Memorizing and frequent repetition of easy colloquial sentences, (c) Rudiments of Grammar with exercises, (d) Reading selections from a German Reader, (e) Constant practice in translating into German easy variations upon sentences selected from the reading lesson, (f) Reading at sight.

Students taking Course 1 *must* also take Course 2 the next Semester. Courses 1 and 2 are prescribed for Freshmen in the Chandler Scientific Course who do not offer German for admission to College, and for Freshmen in the A.B. Course who do not elect French on entering and are not eligible to Courses 3 and 4, or 5 and 6. Courses 1 and 2 may also be elected later than Freshman year by students in the A.B. Course not qualified to enter a more advanced course. These courses will not count toward Minors or Majors in the Group System.

3. *Elementary (Second Year).* A

Professor HARDY, Messrs. GOULD and ANDREWS.

First Semester, 3 hrs.

Reading of narrative prose and a story or a comedy. Grammar, paraphrasing of texts read, word-formation.

Course 3 is a continuation of Courses 1 and 2. Students having had Courses 1 and 2, and wishing to continue their German, *must* choose Course 3. Students taking Course 3 are expected to elect Course 4 the next Semester.

4. *Elementary* (*Second Year*). A

Professor HARDY, Messrs. GOULD and ANDREWS.

Second Semester, 3 hrs.

Continuation of Course 3.

5. *Advanced* (*Third Year*). A

Professor W. A. ADAMS and Mr. GOULD. First Semester, 3 hrs.

Reading of narrative prose and a story. Review of grammar, paraphrasing of texts, word-formation.

6. *Advanced* (*Third Year*). A

Professor W. A. ADAMS and Mr. GOULD. Second Semester, 3 hrs.

Continuation of Course 5. Narrative prose. Heine: Prose and Poems. Grammar, paraphrasing.

Courses 5 and 6 are prescribed for Freshmen who offered two years of German for admission to College. They may be elected by students who have passed in Courses 3 and 4 or by those who have had an amount of German equivalent to the requirements for admission to the Chandler Scientific Course. An advanced section will do work of B grade and may be elected by upper classmen.

7. *Modern German Prose.* B

Professor HARDY. First Semester, 3 hrs.

Reading of a considerable amount of prose taken from representative modern writers.

Course 7 is open only to those who have previously had at least *two* years of German.

8. *Modern German Prose* (*continued*). B

Professor HARDY. Second Semester, 3 hrs.

Continuation of Course 7.

9. *Lyrics and Ballads.* B

Mr. ANDREWS. First Semester, 3 hrs.

Reading of a considerable amount of representative German lyrics and ballads. Study of authors and periods.

Course 9 is open only to those who have previously had at least *two* years of German.

11. *German Drama.* B

Professor HARDY. First Semester, 3 hrs.

Reading of plays with study of the drama. Selection made from the following list: Lessing, *Minna von Barnhelm*, *Emilia Galotti;* Goethe, *Götz von Berlichingen*, *Iphigenie auf Tauris;* Schiller, *Wilhelm Tell.*

12. *German Drama* (*continued*). B

Professor HARDY. Second Semester, 3 hrs.

Continuation of Course 11. Selection made from the following list: Schiller, *Wallenstein;* Kleist, *Der Prinz von Homburg;* Freytag, *Die Journalisten;* Hauptmann, *Die versunkene Glocke;* Sudermann, *Johannes* (or *Die Heimat*).

Courses 11 and 12 are open only to those who have previously had at least *two* years of German.

13 and 14. *Composition and Conversation.* B

Professor W. A. ADAMS and Mr. GOULD.

First and Second Semesters, 3 hrs.

Course 13 is open only to those who have previously had at least *two* years of German, and have attained an average rank of 70 in all their previous German courses. Course 14 is open only to those who have taken Course 13.

15 and 16. *Nineteenth Century Literature.* C

Mr. STEWART. First and Second Semesters, 3 hrs.

The history of German literature will be traced from the beginning of the Romantic Movement down to the present time with illustrative readings from various representative writers. The work will consist of lectures, recitations, reports, and outside reading.

Open only to Juniors and Seniors who have previously had at least *three* years of German. [Not offered in 1904–1905.]

17. *Goethe, Works and Life.* C

Professor W. A. ADAMS. First Semester, 3 hrs.

Poems; Götz von Berlichingen; Iphigenie.

18. *Goethe (continued).* C

Professor W. A. ADAMS. Second Semester, 3 hrs.

Continuation of Course 19. *Faust I* and parts of *Faust II.*

Courses 17 and 18 are open only to those who have previously had at least *two* years of German and ordinarily would be taken most satisfactorily after *three* years of work in German. Consent of the instructor is necessary for those who have previously had only *two* years of German. Course 18 may be chosen by those who have not taken Course 17.

19. *History of German Literature.* C

Professor W. A. ADAMS. First Semester, 3 hrs.

History of German Literature, supplemented by the reading of representative pieces of literature.

Permission of the instructor required before electing this course.

20. *History of German Literature (continued).* C

Professor W. A. ADAMS. Second Semester, 3 hrs.

Continuation of Course 19.

21. *Goethe's Life and Works and their Significance.* C

Professor W. A. ADAMS. First Semester, 1 hr.

A course of informal lectures. Assigned readings. Knowledge of German not required.

22. *History of the German Language.* C

Professor HARDY. Second Semester, 3 hrs.

Lectures and reading of texts. Open to graduate students and, upon consent of the instructor, to Seniors and Juniors who have previously had at least *three* years of German.

23. *Lessing.*

Professor W. A. ADAMS. First Semester, 3 hrs.

Advanced course in Lessing. Open only to graduate students.

24. *Goethe.*

Professor W. A. ADAMS. Second Semester, 3 hrs.

Advanced course in Goethe. Open only to graduate students.

Courses 15–16 and 19–20, and courses 22 and 24 are given in alternate years. In 1904–1905 courses 15–16, and 24 are given.

PHILOLOGY AND LINGUISTICS

1. *Elementary Linguistics.* A

Professor HUSBAND. First Semester, 3 hrs.

A general non-technical course treating of the history of language; the relation existing among the most important European languages; the sounds of language, with description of the organs of speech and hearing; methods of recording speech; principles of change in language; rise of dialects, with methods of determining good usage. Open to all Juniors and Seniors.

2. *Phonetics.* B

Professor HARDY. Second Semester, 1 hr.

Based chiefly upon a study of the English sound-system; brief description of the action of the organs of speech and hearing; methods of recording speech. Intended as a basis for the study of historical grammar and for the practical teaching of the sounds of language. Soames's *Introduction to the Study of Phonetics* (1900). Open to Juniors and Seniors who have obtained an average rank of 70 in their language work of Freshman and Sophomore years.

3. *Old English.* C

Professor HARDY. First Semester, 3 hrs.

See Course 17 under English.

4. *Historical Greek Grammar.* C

Professor HUSBAND. Second Semester, 3 hrs.

See Course 20 under Greek.

6. *Historical Latin Grammar.* C

Professor HUSBAND. Second Semester, 3 hrs.

See Course 18 under Latin.

8. *Middle English.* C

Professor C. F. RICHARDSON. Second Semester, 3 hrs.

See Course 20 under English.

10. *History of the German Language.* C

Professor HARDY. Second Semester, 3 hrs.

See Course 22 under German.

MATHEMATICS

1. *Algebra.* A

Professors WORTHEN and HOLDEN and Mr. BARTON.

First Semester, 3 hrs.

Quadratic and indeterminate equations, ratio and proportion, variation, series, binomial formula, logarithms, permutations and combinations, theory of equations, graphic algebra. (Wells's *College Algebra.*)

2. *Solid Geometry.* A

2a. *Plane Trigonometry.* A

Professors WORTHEN and HOLDEN and Mr. BARTON.

Second Semester, 3 hrs.

(2). Solid Geometry, with original demonstrations, and the solution of problems relating to the surfaces and volumes treated.

(2a). Plane Trigonometry, with applications to problems in surveying.

3. *Algebra.* B

Professor SHERMAN. First Semester, 3 hrs.

Algebra. Logarithms, permutations and combinations, probability, continued fractions, summation of series, theory of equations, graphic algebra. (Wells's *College Algebra.*)

4. *Spherical Trigonometry.* B

6. *Analytic Geometry.* B

Professor SHERMAN. Second Semester, 3 hrs.

(4). Spherical Trigonometry, with applications to geodesy and astronomy. (Phillips and Strong.) (5 weeks.)

(6). Plane Analytic Geometry, including Higher Plane Curves. (Hardy.) (13 weeks.)

5, 7, 9. *Analytic Geometry and Differential Calculus.* B

Professor WORTHEN. First Semester, 4 hrs.

(5). Plane Analytic Geometry, including Higher Plane Curves. (Hardy.) (10 weeks.)

(7). Analytic Geometry of three dimensions. (Hardy.) (3 weeks.)

(9). Differential Calculus, with geometrical applications. (Hardy.) (5 weeks.)

10, 10a. *Differential and Integral Calculus.* C

Professor WORTHEN. Second Semester, 4 hrs.

(10). Differential Calculus, with geometrical applications. (Hardy.) (9 weeks.)

(10a). Integral Calculus, with applications to analytic geometry. (Hardy.) (9 weeks.)

11. *Differential Calculus.* C

Professor SHERMAN. First Semester, 4 hrs.

Differential Calculus, with geometrical applications. (Hardy.)

12. *Integral Calculus.* C

Professor SHERMAN. Second Semester, 4 hrs.

Integral Calculus, with applications to analytic geometry, and including the elements of Differential Equations. (Murray.)

Courses 1, 2, 2a, 5, 7, 9, 10, and 10a are intended for those who enter with Mathematics I; Courses 3, 4, 6, 8, 11, and 12 are intended for those who enter with Mathematics II. Either of the above series is essential for the pursuit of the advanced courses in Engineering, Physics, and Astronomy.

13. *Differential Equations.* C

Professor WORTHEN. First Semester, 3 hrs.

Text-book, Murray.

14. *Determinants.* C

Professor SHERMAN. Second Semester, 2 hrs.

Text-book, Weld.

15. *Quaternions.* C

Professor SHERMAN. First Semester, 3 hrs.

Text-book, Hardy.

16. *Elliptic Functions.* C

Professor SHERMAN. Second Semester, 2 hrs.

Text-book, Baker.

18. *Theory of Functions.* C

Professor WORTHEN. Second Semester, 3 hrs.

Text-book, Durege.

GRAPHICS

1. *Mechanical Drawing.* A

Professor HAZEN, Messrs. WITHEY and STOWELL.

First Semester, 3 hrs.

An introductory course treating of the instruments used and the methods of using them. It includes the construction of engineering, mechanical, and architectural drawings, lettering, and shading.

2. *Mechanical Drawing.* A

Professor HAZEN and Messrs. WITHEY and STOWELL.

Second Semester, 3 hrs.

Tinting. Descriptive Geometry as applied to elementary projection drawing.

3. *Descriptive Geometry.* B

Professor HAZEN. First Semester, 3 hrs.

Descriptive Geometry, as applied to third angle projections and to the construction of projections and sections from models and actual structures; to the representation by drawings or projections of all geometrical magnitudes; and to the intersections and tangencies of developable, double-curved, and warped surfaces.

4. *Descriptive Geometry.* C

Professor HAZEN. Second Semester, 3 hrs.

Descriptive Geometry continued, and applied to spherical projections, shades, and shadows, and linear perspective, axonometric projections, and cavalier perspective.

> Courses 1, 2, 3, and 4 are required for the subsequent election of the Thayer Engineering Course.

5. *Topographical and Machine Drawing.* C

Professor HAZEN. First Semester, 3 hrs.

A course in topographical drawing and machine drawing, including tracing and blue-printing.

(THAYER SCHOOL COURSES)

6. *Plotting of Surveys.* C

Professors HAZEN and MANN. 40 half-days.

Plotting of land, stadia and railroad surveys.

> This course constitutes a part of the Thayer School Courses 3, 4, and 5, and the half-days here given are included in the time allotted to those courses.

7. *Graphical Statics.* C

Professor HAZEN. 24 half-days.

This includes the first principles of the subject and the determination of the stresses in roof and bridge trusses.

> This course is a part of the Thayer School Course 11, and the half-days here given are included in the time allotted to that course.

CIVIL ENGINEERING

2. *Surveying.* B

Professor HAZEN. Second Semester, 3 hrs.

Surveying with level, transit, and compass; the adjustments, care, and proper methods of using these instruments. This course in-

cludes the methods of determining areas; laying out and dividing land; practice with the solar transit used in surveying the public lands; determination of true meridian by the sun and polar star; levelling for profiles, city surveying, plotting, and computing from field notes taken in connection with the above work.

(THAYER SCHOOL COURSES)

3. *Surveying.* B

Professors MANN and HOLDEN. 65 half-days.

Theory, adjustments, and use of instruments, including the transit, theodolite, level, plane-table, solar transit, sextant, aneroid barometer, and precise level ; land surveying; topographical, hydrographical, and city surveying.

4. *Railroad Engineering.* C

Professors HAZEN and HOLDEN. 55 half-days

This course includes a reconnaissance, preliminary and location surveys, and estimates of a line from two to three miles long through a country as difficult as is ordinarily met with ; also a study of the various forms of easement or transition curves.

5. *Higher Surveying.* C

Professors MANN and HOLDEN. 40 half-days.

This course includes geodetical field-work and computations; the determination of latitude and time by the sextant and transit ; azimuth by observations on the sun, Polaris, and some other star at elongation ; also photography applied to surveying. Theory and applications of Least Squares.

6. *Analytic Mechanics.* C

Professor FLETCHER 70 half-days.

Analytical Mechanics and general applications; kinematics, and dynamics ; statics and kinetics. Principles and working conditions, including friction and various applications. Elements of Mechanism.

7. *Masonry Constructions.* B

Professors FLETCHER and HAZEN. 40 half-days.

This course includes a study of building stones, brick, and mortar; of the building of stone, brick, and artificial stone masonry; of foundations on land, on piles, and under water; of masonry dams, retaining walls, bridge abutments and piers, culverts and arches; a course in Practical Mineralogy; and the testing of limes and cements in the laboratory.

8. *Stone-cutting.* A

Professor HAZEN. 20 half-days.

Stone-cutting, including the discussion and designing of arches and wing walls.

9. *Mechanics of Materials.* C

Professor MANN. 30 half-days.

Mechanics of Materials, including the theory of beams, columns, and shafts; the methods of designing such elementary structures, and bridge and roof connections and joints.

10. *Highway Engineering.* A

Professor HAZEN. 20 half-days.

This course considers the approved methods of constructing Macadam, Telford, gravel, and common earth roads; wood, stone, brick, and asphalt pavements for cities; and the proper methods of maintaining country roads and city pavements.

11. *Roofs and Bridges.* C

Professor MANN. 36 half-days.

Roofs and Bridges, including analytical and graphical determination of the stresses in roof and bridge trusses. Design of a simple roof and a bridge.

12. *Materials of Engineering.* C

Professors FLETCHER and MANN. 26 half-days.

Materials of Engineering, including wood, building stones, and the manufacture of iron and steel, the methods of testing all of these materials, and a study of the machines used in making these tests.

PHYSICS

1–2. *General Physics.* A

Professor HULL and Mr. SMITH.

First and Second Semesters, 3 hrs.

A study of the phenomena and simpler laws of Mechanics, Sound, Heat, Electricity, Magnetism, and Light. Instruction is given by lectures with an ample number of illustrative experiments, by recitations and frequent examinations upon the lectures and text-book assignments.

Courses 1 and 2 belong together and should not be elected separately.

Earlier work in Physics is not required for entrance to these courses, but Mathematics 1 and 2a, or their equivalents, are a prerequisite.

Physics 3 and 4 may be carried at the same time with 1 and 2. Students intending to specialize in the physical sciences, or who wish to complete a Minor in Physics early in the college course, are advised to elect courses 1, 2, 3, and 4 in sophomore year.

3. *Practical Physics.* B

Professor GILBERT and Messrs. FARWELL and SMITH.

First Semester, 3 hrs.

A course in the theory and use of instruments of precision and in the experimental verification and application of physical laws. In particular, the micrometer and vernier calipers, the spherometer, and the micrometer eyepiece are used for measuring length; the seconds clock, stop-watch, chronograph, and tuning-fork for measuring time; spring, pan, and analytical balances, and inertia methods for measuring mass; the laws of the pendulum and of falling bodies are used to determine "g"; the laws of forces, moments, moments of inertia, centres of mass, Hooke's, Boyle's, and Charles's laws are verified; the densities of solids and liquids are measured in a number of ways; the laws of vibrating strings, the measurement of the period, wave-length, and velocity of propagation of wave disturbances in different media are determined. Experiments are performed in the study of thermometers, in calorimetry, in the expansion, due to heat, of solids, liquids, and gases, and in the measurement of specific and latent heats.

While care in manipulation and accuracy of observation are required of the student, it is also essential that he understand thoroughly the principles involved in the experiments. Oral reviews and tests will be held at convenient intervals to determine to what extent these principles have become a part of the student's knowledge.

A laboratory manual (Ames and Bliss) will be used by the student; other texts will be consulted. Laboratory fee, $3.

4. *Practical Physics.* B

Professor GILBERT and Messrs. FARWELL and SMITH.
Second Semester, 3 hrs.

A continuation of Course 3, extended into the study and experimental verification of the general laws of Electricity, Magnetism, and Light. The exercises include the mapping of electric and magnetic fields and lines of current-flow, the determination of the strength of magnetic fields, the measurement of the resistance of wires, liquids, batteries, and galvanometers, the measurement of electromotive force, capacity, temperature-coefficient of wires, the electrochemical and heat equivalent of an electric current, and the use of the D'Arsonval, Thomson, and tangent galvanometers.

In Light, the laws of photometers and mirrors, the measurement of the focal length and magnifying power of lenses and combinations of lenses, the index of refraction of glass, the spectra of a number of substances, the wave lengths of light, and the simple laws of polarization and double refraction are determined or verified. Laboratory fee, $3.

5. *Analytic Mechanics.* C

Professor GILBERT. First Semester, 3 hrs.

A course of lectures on Statics, including the composition and resolution of forces acting on a particle and on a rigid body; efficiency of machines, sensitiveness of a balance, equilibrium of flexible strings, and the elementary theory of attractions; kinematics; dynamics, the motion of projectiles, collision of elastic bodies, simple harmonic motions, and central orbits. Without sacrificing the rigidity of mathematical deductions, recourse will be had, where occasion permits, to experimental illustrations. Text: Williamson and Tarleton. Prerequisites, Differential and Integral Calculus, and Physics 1 and 2.

6. *Wave Motion.* C

Professor HULL. Second Semester, 3 hrs.

A course of lectures and recitations on the theory of Heat; thermodynamics, including the elementary kinetic theory of gases, and the theory of solutions. Lectures and text references. Prerequisites, Physics 1 to 4 inclusive, Differential and Integral Calculus.

Courses 6 and 6a are offered in alternate years.

6a. *Advanced Optics.* C

Professor HULL. Second Semester, 3 hrs.

This course will consist of lectures, experimental and theoretical, recitations, and laboratory work. The domain covered will be nearly that of Preston's *Theory of Light.* Laboratory exercises in the measurement of the refractive index and dispersive power of glass, of the wave length of light by the grating and interferometer, and of the phenomena of diffraction and polarization, will be performed by the students. Prerequisites, Differential and Integral Calculus, and Physics 1 to 4. Laboratory fee, $3.

[Offered in 1904–1905.]

7. *Electricity and Magnetism.* C

Professor HULL. First Semester, 3 hrs.

A course of lectures and recitations on the theory of electricity and magnetism, following for the most part J. J. Thomson's text. Applications of the theory will be made by the students in the experimental study of electrometers, the inductive capacity of dielectrics, stream and equipotential lines, and galvanometers. Prerequisites, Physics 1 to 4 inclusive, Differential and Integral Calculus.

8. *Electricity and Magnetism, Alternating Currents.* C

Professor GILBERT. Second Semester, 3 hrs.

A course of lectures and recitations on the theory of alternating currents with experimental applications to wattmeters, measurement of hysteresis, transformers, alternators, synchronous and induction motors, transmission of power, etc. Text-book, "Alternating Currents" by Franklin and Williamson. Prerequisites, Differential and Integral Calculus, Physics 1 to 4, and Physics 7.

9. *Advanced Laboratory Work.* C

Professor HULL. First Semester, 3 hrs.

A course in electrical measurements. Prerequisites, Physics 1 to 4 inclusive. Laboratory fee, $3.

10. *Advanced Laboratory Work.* C

Professor HULL. Second Semester, 3 hrs.

A course in the accurate measurement of mass, length, and time. Prerequisites, Physics 1 to 4 inclusive. Laboratory fee, $3.

11 and 12. *Physical Seminar.*

Professors HULL and GILBERT. First and Second Semesters, 2 hrs.

A seminary for the discussion of the current periodical literature and special research problems in Physics.

13 and 14. *Research Problems.*

Professors HULL and GILBERT. First and Second Semesters, 3 hrs.

A course in investigation and research problems in Physics.

Of the foregoing, Courses 1 to 5 may be elected by undergraduate students only, 6 to 10 are open both to undergraduates and graduates, 11 to 14 are open only to graduate students.

The requirement for a Minor in Physics includes Courses 1, 2, 3, and 4. The requirement for a Major includes Courses 1, 2, 3, and 4, and any two of the advanced Courses 5, 6, 7, 8, 9, and 10, except the combination of 9 with 10.

ASTRONOMY

1. *Descriptive Astronomy.* A

Dr. POOR. First Semester, 3 hrs.

A recitation course in general descriptive Astronomy, supplemented by occasional lectures and visits to the Observatory. The previous study of elective courses in Mathematics is not necessary. Prerequisite, Physics 1, 2. (Young's *Manual of Astronomy.*)

2. *Spherical Astronomy.* B

Dr. POOR. Second Semester, 3 hrs.

A recitation course in the relation of Spherical Trigonometry to Practical Astronomy with practice in computation. Students will be required to make observations with the Sextant, Meridian Circle, Equatorial and Transit Instrument, and perform the necessary reductions. Prerequisite, Astronomy 1. (Greene's *Spherical and Practical Astronomy.*)

3. *Practical Astronomy.* C

Dr. POOR. First Semester, 3 hrs.

A continuation of Course 2. The method of Least Squares will be briefly studied. Prerequisites, Astronomy 2 and Differential and Integral Calculus. (Campbell's *Practical Astronomy.*)

4. *Practical Astronomy (or Astrophysics).* C

Dr. POOR. Second Semester, 3 hrs.

A continuation of Course 3, or, if the class so desire, such work in Astrophysics as can be carried on at the Observatory, supplemented by reading from astrophysical papers and the reduction of astrophysical observations. Prerequisite for Practical Astronomy, Astronomy 3; for Astrophysics, Astronomy 2 and Differential and Integral Calculus.

6. *Mathematical Astronomy.* B

Dr. POOR. Second Semester, 3 hrs.

A course in such mathematical subjects as are necessary for a later study of Celestial Mechanics. Prerequisites, Astronomy 1, Differential and Integral Calculus.

7. *Celestial Mechanics.* C

Dr. POOR. First Semester, 3 hrs.

Prerequisites, Analytic Mechanics or Differential Equations, and Astronomy 2 or 6. (Moulton's *Celestial Mechanics.*)

8 *Celestial Mechanics.* C

Dr. POOR. Second Semester, 3 hrs.

A continuation of Course 7. Prerequisite, Astronomy 7.

CHEMISTRY

2. *Chemistry of the Non-Metallic Elements.* A

Professor BARTLETT and Mr. WOODS. Second Semester, 3 hrs.

Lectures, recitations, and laboratory work. In this course special emphasis is laid upon the general principles of Chemistry, the Notation in its experimental and arithmetical meaning, upon Nomenclature and Terminology in their applications. Some familiarity with the properties of chemical substances and with processes is acquired. A beginner's course, open to students who have had no chemistry in their preparation for College. Laboratory fee, $2.

3. *Metallic Elements and their Compounds.* A

Professor BARTLETT, Dr. BOLSER, and Mr. WOODS.

First Semester, 3 hrs.

This course reviews rapidly the ground work preparatory to the study of the more difficult compounds of the non-metallic elements and continues the study of these elements and the metals by lectures, recitations (Newth's *Inorganic Chemistry*), and by Qualitative Analysis in the laboratory. For completeness students who elect this course should elect Course 4 also. It divides the time about equally between one-hour recitations and two-hour laboratory exercises. Open to all students who have had Course 2, or its equivalent.

Entrance Physics, or Physics 1, is a desirable foundation for this course. Laboratory fee, $3.

4. *Continuation of Course* 3. A or B

Dr. BOLSER and Mr. WOODS. Second Semester, 3 hrs.

The study of the Metals and their compounds is completed, and more complex problems of Qualitative Analysis are introduced. Practice in Arithmetical calculations. Laboratory fee, $3.

5. *The Carbon Compounds.* B or C

Dr. BOLSER. First Semester, 3 hrs.

The Carbon Compounds. Recitations (Remsen's *Organic Chemistry*) and lectures with regular written reviews. Laboratory work in prep-

aration of representative compounds of the important series of organic chemistry and in methods for their identification. Open to students who have completed Courses 3 and 4. Laboratory fee, $4.

6. *The Carbon Compounds.* C

Dr. BOLSER. Second Semester, 3 hrs.

This course is intended to supplement Course 5, and will deal primarily with the aromatic series. In the laboratory a few classical syntheses of important compounds will be studied. Parallel with the laboratory work, recitations and lectures will be held, having as subject matter the structural composition of representative members of various series of organic compounds, and the theoretical questions to which the study of these compounds give rise. Open only to students who have completed Course 5. Laboratory fee, $4.

7. *Quantitative Analysis.* B or C

Professor BARTLETT. First Semester, 4 hrs.

A course in the laboratory arranged from standard text and reference books. Elementary gravimetric and volumetric methods. Open to students who have completed Course 4, with a rank of at least 75. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, $4.

8a. *Quantitative Analysis (continued).* C

Professor BARTLETT. Second Semester, 4 hrs.

A continuation and advancement of Course 7 with more complex analyses and their applications. Open only to students who have completed Course 7. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, $4.

8b. *Quantitative Analysis.* B or C

Professor BARTLETT. Second Semester, 4 hrs.

A course corresponding to Course 7 and open only to students who have completed Course 5 with a rank of at least 75. This course requires as a minimum the equivalent of seventy-two exercises of two hours each. Laboratory fee, $4.

9 and 10. *Physiological and Medical Chemistry.*

Professor BARTLETT. First and Second Semesters, 3 hrs.

Physiological and Medical Chemistry. A course with laboratory, lecture, and recitation work giving special attention to the carbohydrates and albumins, to toxicology, the chemistry of the body, and the applications of chemistry to medicine. First and Second Semesters; open only to students in the second year of the Medical School.

12. *Historic and Economic Chemistry.* C

(*a*) Mr. RICHARDSON, (*b*) Professor BARTLETT.

Second Semester, 2 hrs.

(*a*) Lectures and readings on the history of the development of chemistry.

(*b*) Lectures on the sources, manufacture, and uses of chemical materials.

[Not offered in 1904–1905.]

13 and 14. *Organic Compounds.* C

Dr. BOLSER. First and Second Semesters, 3 hrs.

A course in the preparation of some of the more complex organic compounds and in organic analysis.

15 and 16. *Advanced Quantitative Analysis.* C

Professor BARTLETT. First and Second Semesters, 4 hrs.

Given in the year 1904–1905. Open to graduates and undergraduates who have completed Course 8a.

Required for the Thayer School, Courses 2, 3, 4; preliminary to the study of Medicine, Courses 2, 3, 4, 5, 8b; Courses 9 and 10 are for students in the second year of the Medical School only; Course 12 is not given in the year 1904–1905; Courses 13, 14, 15, 16 are for graduate students.

For students who have not presented chemistry for entrance, a Minor consists of 2, 3, 4, and either 5 or 7. A Major consists of 2, 3, 4, and one of the following combinations: 5, 6, 7; or 5, 7, 8a; or 5, 6, 8b.

For students who have presented chemistry for entrance, a Minor consists of 3, 4, and any one of the following combinations: 5, 6; or 7, 8a; or 5, 7; or 5, 8b. A Major consists of 3, 4, 5, 6, 7, 8a. Course 12 may in some cases be combined with a four-hour course in meeting the requirements for a Major.

BIOLOGY

ZOÖLOGY AND BOTANY

The courses in Zoölogy and Botany are designed for three classes of students, namely: (*a*) for those who wish to know something of the elementary principles and aims of the science; (*b*) for those who intend to study medicine; and (*c*) for those who expect to teach the natural sciences, or who for any reason are interested in the subject and wish to give it special attention.

Courses 1, 1a, 2, 3, 4, 5, and 6, are elementary in character, and are intended for those who desire a comprehensive view of the subject. Those who intend to study medicine will find the following courses of especial value as a preparation for the study of human anatomy, physiology, and bacteriology: namely, Biology, 1, 1a, 2, 3, 4, 5, 7, 9, and 10. Courses 1, 1a, 2, and 10 will be useful to students of psychology.

While the above named courses have been modelled to meet the requirements of the general student and of those who have a medical career in view, the symmetry and continuity of the entire series of courses have been maintained in order to meet the requirements of those who expect to teach the natural sciences or to become professional biologists.

Biology 1 and 2 are continuous and dependent courses in Elementary Biology. They are designed for those students who desire some knowledge of the fundamental facts and principles of animal and plant life, and of the modern methods of solving biological problems.

Biology 1 should not be elected unless the student intends to take Biology 2. Biology 2 is open only to those who have completed the required work in Biology 1. Biology 1, 1a, and 2 are prerequisites for all other courses in Zoölogy and Botany.

1. *Elementary Biology* (*Botany*). A

Professor LYMAN, and Messrs. LAMBERT and GRIGGS.

First Semester, 3 hrs.

An introductory course giving a general survey of the vegetable kingdom. The lectures treat of some of the fundamental principles

of Biology common to both plants and animals, and give a comprehensive review of the physiology, morphology, and reproduction of plants, special attention being paid to the lower plants, and to the relation of fungi and bacteria to fermentation, putrefaction, and disease. The laboratory work consists largely of the microscopic examination of some of the principal representatives of the vegetable kingdom. (Coulter's *Plants.*) Laboratory fee, $3.

1a. *The Principles of Biology.* A

Professor PATTEN. First Semester, 2 hrs.

A course of lectures on the structure and activities of plants and animals, with a discussion of the principal phenomena of nutrition, growth, reproduction, heredity, variations, distribution, natural selection and evolution. The course is designed especially for those who desire a brief statement of the principles and aims of the science, and as a preparation for Biology 1 and 2. It must be taken with, or before Biology 1. Sophomores who have taken Biology 1 and 2 in their Freshman year may elect Biology 1a after Biology 1 and 2.

2. *Elementary Biology (Zoölogy).* A

Dr. GEROULD, and Messrs. LAMBERT and GRIGGS.

Second Semester, 3 hrs.

An introduction to the study of animal life. The structure and life histories of a series of typical animals are studied in the laboratory in order to gain an insight into the elementary principles of the science. The lectures treat of the differences between animals and plants, the evolution and interrelation of animal forms, the phenomena which lie at the basis of nutrition, growth, and heredity, and the inter-action which exists between animals and their environment. (T. J. Parker's *Practical Zoölogy*, Jordan and Kellogg's *Animal Life.*) Laboratory fee, $3.

3. *Invertebrate Zoölogy.* B

Dr. GEROULD. First Semester, 3 hrs.

This is a course in the comparative anatomy, embryology, and physiology of the invertebrates. Attention is given to the interrelation of the various phyla, to the maturation, fertilization, and cleavage of the ovum, the formation of germ layers, larval development, and to the more important parasites of interest to the student of

medicine. Several examples from each of the more prominent phyla are studied in the laboratory. (Shipley and McBride's *Elementary Zoology*, Hertwig's *Manual of Zoology*, translated by Kingsley.) Laboratory fee, $3.

4. *Comparative Anatomy of Vertebrates.* B

Professor PATTEN. Second Semester, 3 hrs.

The outlines of the classification of vertebrates, the homologies, and the histological structure of vertebrate organs, the theories of the structure of the vertebrate head, and of the derivation of the Chordata will be discussed. The object of the course is to illustrate the evolution of the vertebrate type of animals from the lowest fishes and related forms up to man, and to discuss some of the conditions that are coincident with, or determine, the progressive modification of various vertebrate organs. The course is intended for those especially interested in zoology, or for those who wish to lay a broad foundation for the study of human anatomy, physiology, or comparative psychology. (Wiedersheim's *Comparative Anatomy of Vertebrates*, Gray's *Anatomy*, and the embryological text-books of Minot, Hertwig-Mark, etc.) Laboratory fee, $3.

5. *Cryptogamic Botany.* B

Professor LYMAN. First Semester, 3 hrs.

This course treats of the classification, structure, activities, and life histories of typical representatives of the lower orders of plants, attention being paid to those forms that are of pathogenic or economic interest, and to the making of various kinds of artificial cultures and culture media. Field excursions are made and the general methods of collection and preservation of cryptogams are studied. This course is designed for those who intend to study medicine, or to teach, or who desire a broad knowledge of the subject. Laboratory fee, $3.

6. *Phanerogamic Botany.* B

Professor LYMAN. Second Semester, 3 hrs.

A general course on the higher plants, continuing the work of Course 5, and completing the survey of the plant kingdom. It treats of the morphology and development of the flowering plants, embracing the main topics of their structure, functions, and habits, together with

their classification, distribution, adaptations, and uses. Opportunity is given for the preparation of an herbarium illustrating some definite problem in œcology. A desirable course for those who wish to obtain a general knowledge of the higher plants. Laboratory fee, $3.

7. *Cytology.* B or C

Dr. GEROULD. First Semester, 3 hrs.

This course treats of the structure and activities of animal and of plant cells. The structure of protoplasm, its physical and chemical properties, the theories of heredity, cell-division, and the effects of nutrition, stimulation, and exhaustion of cells are discussed. Laboratory fee, $3.

9. *Vertebrate Embryology.* C

Professor PATTEN. First Semester, 4 hrs.

A study of the embryology of the frog, the chick, and a mammal. Open only to those who have done satisfactory work in Biology 1, 2, and 4. (Minot's *Human Embryology*, Hertwig's *Embryology of Vertebrates*, Marshall's *Vertebrate Embryology*.) Laboratory fee, $3.

10. *Comparative Anatomy and Physiology of the Nervous System and Sense Organs.* B or C

Dr. GEROULD. Second Semester, 3 hrs.

A course of lectures and laboratory work illustrating the structure and evolution of the nervous system and sense organs, with special reference to their physiology. A desirable course for students of medicine or psychology. Open to students who have taken Courses 1 and 2. Laboratory fee, $3.

12. *Vegetable Histology and Physiology.* C

Professor LYMAN. Second Semester, 3 hrs.

A study of the minute structure of the higher plants, and of the development of tissues and organs is combined with experiments on the properties of protoplasm and its relation to external stimuli, nutrition, growth, etc. Considerable attention is paid to methods of histological technique, — staining, killing, fixing, embedding, sectioning, etc. This course must be preceded by Course 6 or its equivalent, and some knowledge of Physics and Chemistry is also desirable. Laboratory fee, $3.

13 and 14. *Systematic Morphology of Plants.* C
Professor LYMAN. First and Second Semesters, 3 hrs.

A field and laboratory course comprising the collection and preservation of material, the analysis of plants, together with assigned readings on the morphology and systematic arrangement of the various groups. Stress may be laid on either the higher or the lower plants. Students proposing to elect these courses must consult the instructor before the close of the preceding college year, in order that arrangements may be made for collecting necessary material for the course. Laboratory fee, $3.

16. *Zoölogical Seminar.* C
Professor PATTEN. Second Semester, 2 hrs.

A discussion of special problems in Biology and a review of the current literature. Designed primarily for those students who intend to do graduate work in Biology. A reading knowledge of French and German is essential.

17 and 18. *Research work.*
Professor PATTEN. First and Second Semesters.

Research courses in animal morphology leading to advanced degrees.

The requirement for a Minor in Biology is Courses 1, 1a, and 2, and any two of Courses 3, 4, 5, 6, 7, and 10.
The requirement for a Major is any two of Courses 7, 9, 10, 12, 13, 14, 16, in addition to the requirement for a Minor.

HUMAN ANATOMY AND PHYSIOLOGY

(MEDICAL SCHOOL COURSES)

HISTOLOGY

1 and 2. *Human Histology.* B
Professor KINGSFORD. First Semester, 3 hrs.
Second Semester, 1 hr.

Laboratory work with recitations during the last few weeks of the course. The elementary tissues are first studied, then the various

organs, including special study of the brain and cord. Each student may prepare and retain sections. This course extends through the first two-thirds of the year.

BACTERIOLOGY

2. *Bacteriology.* B

Professor KINGSFORD. Second Semester, 2 hrs.

Laboratory demonstrations supplemented by recitations. The aim in this course is to make it as practical as possible. Special attention is given to the examination of sputum for tubercle bacilli, to the diagnosis of diphtheria, the technic of the Widal serum diagnosis in typhoid fever, and to staining pus. Each student is required to isolate a number of different organisms. Special instruction is given to any student desirous of doing research work, either in bacteriology or pathology. Six hours in the laboratory each week. This course follows Histology and extends through the last third of the year.

HUMAN ANATOMY

1 and 2. *Human Anatomy.* C

Professor FROST and Dr. P. BARTLETT.

First and Second Semesters, 3 hrs.

Osteology, arthrology, and a preliminary study of the viscera. A course of recitations and demonstrations. Preparations from the Anatomical Museum are given out for study. Opportunity is offered to follow the dissections of the human body made by the medical students of the second and third years. The written examinations covering the work in osteology and arthrology, if satisfactory, are final. (Gray's *Anatomy*, last edition.)

PHYSIOLOGY

1. *Elementary.* B

Professor W. T. SMITH. First Semester, 3 hrs.

A course of lectures and quizzes upon the essential facts of Physiology, bringing them into relation as far as possible with future work.

2. *Laboratory Course.* C

Professor STEWART. Second Semester, 3 hrs.

A course of lectures, demonstrations, and laboratory work upon the physiology of nerve and muscle, and of the blood and circulation. Each student will perform the more important experiments in these subjects for himself. Text-books: Kirkes' (Blakiston's edition). For reference, American *Text-Book of Physiology*, Schaeffer, Waller, Foster.

The Physiological Laboratory has recently been equipped with the latest apparatus. A sufficient number of complete sets has been provided to furnish one to every two students. These include kymograph, induction coil and stimulating apparatus, tambours, apparatus to illustrate the circulation, etc.

MEDICAL PHYSICS

1. *Laboratory Course.* A

Professor STEWART. First Semester, 3 hrs.

A laboratory course with occasional informal lectures and recitations to correlate the work done in the laboratory. The topics included will be those essential to a proper understanding of physiology and allied subjects. (Daniell's *Physics for Students of Medicine.*)

The requirement for a Minor in Anatomy and Physiology is Biology 1, 1a, 2, 4, together with Medical Physics 1 and Physiology 1; for a Major, Human Anatomy 1, 2, and Physiology 2 in addition to the requirement for a Minor.

PHYSICAL CULTURE

1. *Physical Culture.*

Mr. BOWLER. First Semester, 1 hr.

A course of lectures on physical culture to the Freshman class. The lectures will cover the physiology of muscular exercises, personal hygiene, dietetics, etc.

GEOLOGY

1. *Physiography.* A

Professor HITCHCOCK. First Semester, 2 hrs.

Studies of the earth, — its atmosphere, land, and water, — man's physical environments. A course introductory to the departments of Geology and Sociology.

[Offered in 1905–1906.]

2. *Dynamical and Structural Geology.* A

Dr. C. H. RICHARDSON. Second Semester, 3 hrs.

This course will embrace a general survey of the whole field of geology, save the organic, and is planned to serve as an introduction to all work in the department. Some of the principal topics discussed are as follows: Nebular and meteoric hypotheses, the origin and distribution of soils, chemical elements most abundant in rocks, chemical and physical characteristics, formation and distribution of glaciers, the theories of volcanoes, classification of igneous and sedimentary rocks, mountain building and continental deformation. (Le Conte's *Elements of Geology*.)

3. *Economic Geology.* B

Dr. RICHARDSON. First Semester, 3 hrs.

The design of this course is to illustrate the modes of occurrence in nature of minerals and ores which have economic importance, to show the commercial advantages of the localities in which they are found, the processes used in their extraction and treatment, their application to arts and industries, and the causes of loss and failure in mining and quarrying. Ores and products of the precious metals, ores and products of the useful metals, glass, sands, and the ores of the alkaline earths and alkalis will be considered.

4. *Economic Geology.* B

Dr. RICHARDSON. Second Semester, 3 hrs.

This is a continuation of the principles involved in Course 3, but may be taken independently of it. Building stones (the quarry products), carbon minerals, including coals, petroleum, natural gas, etc., will be studied.

The above economic courses are free electives.

5. *Organic Geology.* B

Professor HITCHCOCK. First Semester, 3 hrs.

This commences with a study of the sea-shore, marine deposits, and the organisms specially concerned in the formation of pelagic ooze, limestones, coral reefs and islands. The topic of Historic Geology follows, discussing as fully as possible the evolution of the continent, the life and the origin of the present distribution of animals and plants. Lectures and recitations, with references to standard treatises.

Open only to those who have completed Course 2. A knowledge of Botany and Zoölogy is important for those who take Courses 5 and 7.

7. *Surfacial Geology.* C

Professor HITCHCOCK. First Semester, 3 hrs.

A course of lectures and field exercises; for the latter, the facilities are remarkably favorable in the vicinity of Hanover. Accounts are given first of actual glaciers, and then studies are made of the phenomena, proving an age of ice formerly existing over more than half of the continent. The classification of the various glacial deposits furnishes data for determining the exact date of the introduction of man.

Open only to those who have completed Course 2.

8. *Local Geology.* C

Professor HITCHCOCK. Second Semester, 3 hrs.

Special study of the geology of Northern New England by readings, discussions, and field work. The amount of time required will be equivalent to three hours per week.

Open only to those who have taken all the preceding courses in Geology and Courses 3 and 4 in Mineralogy.

The requirement for a Minor in Geology is Geology 2, 3, 4, 5, 7, but Mineralogy 1 may be substituted for Geology 3 or 4; for a Major, Geology 8, and Mineralogy 4, in addition to the requirement for a Minor.

Graduate students and candidates for the degree of Ph. D. will engage in field work in areas specially assigned, and apply the princi-

ples of Petrography to specimens of their own collection. They will study the Reports of the several States, the larger manuals of Geikie and Dana, and special treatises, according to the particular subject assigned.

MINERALOGY

1. *Chemical Mineralogy.* A

Dr. C. H. RICHARDSON. First Semester, 3 hrs.

A systematic course in the detection of economic minerals by blowpipe reactions and confirmatory chemical tests. The origin, differences, economic uses, and annual output of the various ores will be emphasized. Some attention will also be given to the essential and accessory constituents of building materials. (Moses and Parson's *Mineralogy and Blowpipe Analysis.*) Open only to those who have taken one course in Chemistry and continue Qualitative Analysis. Laboratory fee, $3.

2. *Chemical Mineralogy and Lithology.* A

Dr. RICHARDSON. Second Semester, 3 hrs.

An advanced course in the study of rock-forming silicates, ores of the precious metals, various gems, and the different varieties of coal. Field work will be the method of instruction after the Easter recess. At various copper mines the student will become acquainted with methods of mining, hoisting, transportation, selection, and smelting of ores. The course enables the student to recognize at sight both the common and economic minerals. (Dana's *Manual of Mineralogy*, large edition, for reference.) Open only to those who have taken Course 1. Laboratory fee, $3.

3. *Physical Mineralogy.* C

Dr. RICHARDSON. First Semester, 3 hrs.

This course includes both text-book and laboratory work. As a text-book William's *Elements of Crystallography* will be used. In laboratory work the student will prove the methods of crystal growth, investigate the laws of combination, determine the geometrical form of crystal models, and identify morphologically both natural and artificial compounds. Laboratory fee, $2.

4. *Optical Mineralogy.* C

Dr. RICHARDSON. Second Semester, 3 hrs.

This course consists of the identification of rock-forming minerals by their optical properties and the detection of injurious microlites in building material. The student may prepare microscopic thin sections and apply to them the principles of petrography. Laboratory fee, $3.

Courses 3 and 4 are open only to those who have taken one year each of Physics and Mineralogy.

5. *Applied Mineralogy and Lithology.*

Dr. RICHARDSON. First Semester.

This course is designed especially for engineers and architects, and deals only with economic material. Special emphasis will be laid upon the methods of identification of the most useful minerals and building-stones. The resistance of marbles, granites, sandstones, etc., to abrasion and compression, and the detection of injurious accessory constituents will be considered. (Moses and Parson's *Mineralogy and Blowpipe Analysis.*) Twenty-seven exercises. Laboratory fee, $2.

Open only to students in the Thayer School.

HISTORY

The courses in History are intended for two classes of students. (1) To those desiring an outline of historical development from ancient to modern times, are offered Courses 1, 2, 3, 4, 6, 9. Courses 1 and 2, required for all later courses, give such training as is essential for the use of ordinary historical material. Courses 3, 4, 6, 9, call for more extensive and critical reading, and the writing of reports or essays to combine results and put into more definite practice the training previously given. (2) For students having some especial interest in the particular period covered, or desiring training to teach History, Courses 5, 7, 8, and 10 are designed. These courses are devoted to a more critical study of selected topics in the period already covered in outline, and to the presentation of results in the form of reports or theses.

1 and 2. *Mediæval and Modern European History.* A

Professors FOSTER and FAY, and Dr. SHIPMAN.

First and Second Semesters, 3 hrs.

Courses numbered 1 and 2 are treated as a continuous year's course in European History from the Teutonic Migrations to the French Revolution (375–1789). A detailed outline of the lectures, the map and written work, and the recitations on lectures, text-books, and collateral reading will be found in the Syllabus for History 1 and 2. In addition to the recitations, the work will be tested by conferences with the instructors and by short written quizzes at the lecture or recitation. A minimum amount of collateral reading is required of all, but it is hoped that the student's interest will lead him into independent reading beyond any requirements.

Students taking Course 1 must take Course 2 the next Semester. Courses 1 and 2 are required for all subsequent courses in History, and for all courses in Modern History, Economics, Political Science, and for English 15.

3. *History of England to the Sixteenth Century.* B or C

Dr. SHIPMAN. First Semester, 3 hrs.

This course will consist primarily of the political history of the English nation, with such reference as is necessary to constitutional, economic, and intellectual development. Lectures, recitations, and reports. Required for admission to Course 4.

4. *History of England and the British Empire from the Sixteenth Century.* B or C

Dr. SHIPMAN. Second Semester, 3 hrs.

This is a continuation of Course 3, and will include, in addition to the history of Great Britain, the development of the British Empire and the history of its colonies and dependencies. Open to those who have had Course 3. Lectures, recitations, and reports.

5. *Era of Renaissance and Reformation.* B or C

Professor FOSTER. First Semester, 3 hrs.

This course traces the transformation of Mediæval into Modern Europe (1300–1600), from the age of Dante to that of Shakespeare and Calvin, and includes such topics as the following: The significant

characteristics of the Middle Ages contrasted with those of modern times; rise of individual, city, national life; dismemberment of empire and papacy; early attempts at reform; the Renaissance; the Protestant Revolution; the Roman Catholic Reaction; the formation and organization of modern States. This course is more advanced than the earlier narrative courses (1–4), is intended for those especially interested in the period or desiring especial training in the study or teaching of history, and is open only to students who have attained an average rank of at least 60 in Courses 1 and 2. Lectures, discussions of general and assigned topics, and the reading of special reports.

Courses 5 and 7–8 are usually given in alternate years.

6. *American Colonial History to 1783.* B or C

Professor FOSTER. Second Semester, 3 hrs.

This course is intended to trace the beginnings of the American nation rather than the details of the history of the individual colonies. Emphasis is therefore laid on the European inheritance brought to this country by the colonists, their development of American institutions in the new environment, the expansion of population, the struggle between French and English for North America, the underlying causes of the Revolution, the growth of independence and union. Students who have not had a good course in English History in the secondary school are advised to precede this course by Courses 3 and 4. Lectures, readings, recitations, and reports.

7 and 8. *The Puritan State.* C

Professor FOSTER. First and Second Semesters, 2 hrs.

This is a study, based mainly on contemporary documents, of the Puritan experiment in government (1) in Geneva, under Calvin's influence, 1536–1564; (2) in England in the sixteenth and seventeenth centuries; and (3) in Massachusetts Bay, 1630–1691. It is an advanced course intended for those who wish to do special work in History, who can read French or German, and who have taken History 1–6, or a satisfactory equivalent. Lectures, theses, and discussions.

[Not offered in 1904–1905.]

9. *The Historical Development of Modern Europe, 1789–1900.* B or C

Professor FAY. First Semester, 3 hrs.

The first part of this course aims to explain the political, social, and intellectual conditions which caused the French Revolution, and to give a brief narrative of the French Revolution itself and of the rise and fall of Napoleon. The second part traces the formation of the present States of continental Europe, and closes with some account of the actual government of each. The course is thus a continuation of History 2 and an introduction to an understanding of the political conditions and questions of the Europe of to-day. The course is open to those who have passed History 1 and 2 with an average rank of at least 60 per cent. Lectures, quizzes on reading, recitations on text-book, and theses.

10. *The History of Prussia.* C

Professor FAY. Second Semester, 3 hrs.

This course will trace by lectures Prussia's position in Germany and the main features of her growth from a Mediæval Electorate to her present position as leading State in the German Empire. A considerable part of the time will be devoted to a detailed study of special problems connected with Prussian history, which will give an opportunity for historical criticism and investigation on the part of the students. Oral reports will be presented by members of the class and discussed in class. This course is open to those who have passed History 1 and 2 with an average rank of at least 60 per cent. A reading knowledge of either French or German is necessary.

12. *Italian Renaissance.* B or C

Second Semester, 3 hrs.

This is a co-operative lecture course given by instructors in the fields of History, Economics, Archæology and Art, Ancient and Modern Languages, and the Natural Sciences. It is designed to show the origin and nature of the Renaissance movement in Italy; the wide range and close inter-relation of its varied manifestations; and its far-reaching results in the different fields of knowledge and human activity. Lectures, collateral reading, frequent written quizzes or reports, and a thesis.

This course is open only to students who have passed History

1 and 2 with a grade of at least 60, and who can use books in at least one language besides English.

[Not offered in 1904–1905.]

A Minor in History is obtained by taking in addition to History 1 and 2 any one of the following combinations: Courses 3–4, 5–6, 6 and Modern History 2, 6–9, 7–8, 9–10, 9, and Modern History 2, 5–12, 10–12. A Major in History is obtained by taking in addition to History 1 and 2 any two of the above combinations.

MODERN HISTORY

History 1 and 2 are prerequisites for all courses in Modern History.

1. *The Political History of Europe from the French Revolution to the Treaty of Berlin (1789–1878).* B or C

Professor J. H. SMITH. First Semester, 3 hrs.

The course opens with lectures on the characteristics of the chief European peoples, which help explain their political history, on the state of things in the principal countries just before the outbreak of the French Revolution, and on the beginnings of that movement. From this point the core of the work is the mastery of a brief text-book, regarded as a full syllabus, and supplemented with formal lectures, comments, required and recommended readings, essays, discussions, and conferences. Due attention is given to physical and political geography. While no attempt is made to teach a philosophy of history, the connection between effects and causes is dwelt upon. The chief stress is laid upon the broad movements of the period, and the vital process by which the Europe of a century and a quarter ago has become the Europe of recent times.

2. *Political History of the United States (1788–1877).* B or C

Professor J. H. SMITH. Second Semester, 3 hrs.

The Political History of the United States from the close of the Revolutionary War to the close of the Reconstruction period (1783 to

1877). This course is conducted in the same general manner as the one just described, except that still more attention is paid to collateral reading and original sources. A special attempt is made to introduce students to the leading men of our political history.

A Minor in Modern History is obtained by combining History 1 and 2 with Courses 1 and 2 in Modern History. A Major is obtained by combining any four courses in History with Courses 1 and 2 in Modern History together with additional work assigned by the instructor.

THE FAR EAST

1. *Elementary Japanese (Written).*

Dr. ASAKAWA. First Semester, 3 hrs.

A study of the more important principles of the grammar of the Japanese written language. This course and course 2 will not enable the student to read and speak Japanese, but are intended to give him an understanding of the grammatical peculiarities of the language. The courses may also serve as a basis for such courses in the language and literature as may hereafter be offered.

2. *Elementary Japanese (Spoken).*

Dr. ASAKAWA. Second Semester, 3 hrs.

In this course, the agglutinatives of the spoken Japanese language will be studied, with constant reference to those of the written language. Course 1 is required for this course.

[Courses 1 and 2 not offered in 1904–1905.]

3. *East Asiatic Civilization.* B or C

Dr. ASAKAWA. First Semester, 3 hrs.

An analytical study of different phases of the civilization of the Chinese, Koreans, and Japanese. Effort will be made to seek underlying principles of the civilization, to interpret its important phenomena, and to place emphasis upon such ideas and institutions as are considered to be controlling forces of the present and future life

of the nations. Current errors concerning the subject will be critically examined, and its essential points will as far as possible be constructed by discussion in the class. A knowledge of the languages is not necessary, but a personal conference is required of each student before electing this course.

4. *The Modern East Asia.* B or C

Dr. ASAKAWA. Second Semester, 3 hrs

A study of the diplomatic, commercial, and moral relations of the East Asiatic with the European and American nations, as well as of the existing conditions of the former. The subject naturally divides itself into three stages: the intercourse between China and Europe during the Middle Ages; the contact of China and Japan with the colonizing nations of Europe from the sixteenth to the eighteenth century; and the new era of international activity opened by the Chinese War of 1841–2. Of these three stages, the first two will be briefly treated, and, of the third, the greater portion of the time will be devoted to the latest developments. The method of instruction will be similar to that of Course 3, with less discussion and more reading. Explanatory view of the more important topics will be given in lectures, and some of the numerous subsidiary topics will be covered by written reports. Open to those who have had Course 3.

6. *Advanced Studies in Civilization.* C

Dr. ASAKAWA. Second Semester, 3 hrs.

A deeper and more extensive study of the East Asiatic culture than Course 3, which is required as preparation for this course. Some of the topics treated will be: social organization; political doctrines and institutions, and law; industries; religion, philosophy, literature, and learning; fine arts; mental outfit of the individual and his habitual views of life, etc. Emphasis will be laid upon the evolution and mutual relation of the phases of the civilization, which are regarded essentially as organs and expressions of the life of the nations under discussion. Translations of the sources and opinions of writers will be freely used and criticized, and the work will be conducted informally as in a seminar.

ECONOMICS

History 1 and 2 are required for all courses in Economics. Courses 1 and 2 constitute a year's course, and no credit will be given for the work of a single Semester.
Courses 1 and 2 and either 3 or 4 are required for all other courses in Economics. Course 9 is open only to First Year Tuck men. Tuck men may complete a Major in Economics by substituting B courses for all C courses except Course 12.

1 and 2. *Elementary Economics.* A

Professor WICKER and Mr. J. B. ANDREWS.

First and Second Semesters, 2 hrs.

In these two courses, which together form a one-year course, the attempt is made to give the student the currently accepted scientific analysis of modern industrial society. It seeks to accomplish a threefold purpose: to teach fundamental principles in such a way that they may be applied to the duties of enlightened citizenship; to open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to offer to those intending to adopt business as a profession such general rules and principles as are contributed to business by the science of Economics.

While the course concerns itself primarily with economic theory, — with the most general principles of consumption, production, exchange, and distribution, — the theory itself is developed from and illustrated by a study of actual economic processes and conditions. Thus due attention is paid to the problems of money and banking, the tariff, monopoly, labor, etc., in such a general way that later intensive study of these problems may be based upon the foundations thus laid. Text-book, lectures, and collateral readings. (First semester, Ely and Wicker's *Elementary Principles of Economics;* second semester, advanced text not yet decided upon.)

3. *Elements of Commercial Geography.* A

Professor PERSON. First Semester, 3 hrs.

This course aims to bring out the general principles of the relation between man's environment and his industrial life, and then to

apply these principles by taking up a study of the various countries as producers and sellers of goods and as markets. While all important regions are considered in an elementary way, a more detailed study is given to the older industrial countries. Among the facts considered are the following: physical conditions, geology, soils, rivers, climate; the nature and distribution of extractive and of manufacturing industries; imports and exports; industrial aptitudes; business methods; and national peculiarities that determine the particular classes of goods demanded. Lectures and text-book. (Adams' *Commercial Geography.*)

4. *Economic History of the United States.* A

Professor DIXON and Mr. ANDREWS. Second Semester, 3 hrs.

Sketch of the development of English industry and commerce to the 18th century, followed by a more careful study of the Industrial Revolution. With this as a background, the development of the United States, both industrial and commercial, is treated in the form of lectures, the relation of economic to social and political factors being constantly noted. The following are some of the topics considered: the land policy of the government, the movement of population, and the development of agricultural resources both North and South, including the economic effects of slavery; the origin and development of the extractive and manufacturing industries; transportation development, including turnpikes, canals, and railways; and a sketch of commercial development, including a brief history of protectionism. Lectures, text-book, and collateral readings.

5. *Money and Banking.* B

Professor YOUNG. First Semester, 3 hrs.

A discussion of the most important features of the institutions of money, banking, and credit, with special reference to their functions in the economic life of to-day. The history of money and banking in the United States. Description of the monetary and banking systems of important foreign countries. Discussion of practical problems, such as: changes in the value of money and their effects on prices and incomes, bimetallism, inconvertible paper currency, the relation of the sub-treasury system to the supply of money, proposed modifications in the national banking laws. Lectures on monetary and banking history. (Dunbar's *Theory and History of Banking* and a work on Money.)

6. *Public Finance.* B

Professor YOUNG. Second Semester, 3 hrs.

This course deals with public revenues and expenditures and the administration of public funds. An introductory sketch of the development of public finance as a science is followed by a discussion of public expenditures, their growth, classification, and relation to governmental functions. The administrative and legislative work of preparing a budget is described. In the treatment of public revenues special attention is given to problems of state and local taxation. Some of the topics discussed are: theories of just taxation, progressive taxation, the shifting and incidence of taxation, the internal revenue system, the tariff on imports, the general property tax, income and inheritance taxes, special taxes on corporations, the work of state tax-commissions. Public debts are treated with reference to their financial justification and their economic effects. (Adams' *Public Finance.*)

7. *Corporations.* B

Professor DIXON. First Semester, 3 hrs.

(*a*) History of business corporations with a careful analysis of the recent forms of industrial combination. (*b*) Elements of the law of corporations, with the purpose of making clear their present economic position and limitations. (*c*) Corporation finance with special reference to the promotion, financiering, and management of large aggregations of capital. (*d*) Corporations and the State, treating fully of public policy toward corporations with special reference to taxation. Although open to all who have had the proper preparation, this course will be found of special value to students preparing for law. Lectures, text-book, and assigned readings. (Meade's *Trust Finance.*)

8. *Transportation.* B

Professor DIXON. Second Semester, 3 hrs.

Steam railways. (*a*) The railway problem of the United States, including theories of rates, combination and pooling, consolidation, community of ownership, and government ownership or control, involving a careful consideration of the work of the Interstate Commerce Commission and of State commissions. (*b*) A comparative study of

the railway systems of other countries, especially England, Germany, France, Canada, and the Australian Commonwealth, with a consideration of the economic significance of the world's great railway systems.

Transportation and communication other than by steam railways. (*a*) Lake, river, and canal transportation in the United States and other countries. (*b*) Ocean transportation with special reference to its relation to the transportation systems of various countries. (*c*) Interurban railways and their growing competitive power, telegraphs, telephones, and cables. Lectures, text-book, and assigned readings and reports. (Johnson's *American Railway Transportation.*)

9. *Resources and Industries of the United States.* B

Professor PERSON. First Semester, 3 hrs.

(*a*) A detailed study of the fundamental conditions of the industrial development of the United States, such as geographical, geological, and climatic factors; the extent and distribution of resources; industrial traits; labor conditions; forms of industrial organization.

(*b*) A general survey of the development and present conditions of the more important extractive industries — agriculture, horticulture, forest industries, fishery industry, and mining.

(*c*) A minute investigation of the development and present condition of typical manufacturing industries, each being considered as to the securing of raw materials, technical processes and costs of manufacture, form of organization, methods of management, the times, places, and methods of the sale of finished products, and as to its general conditions and prospects.

Emphasis is given throughout this course to facts of practical value, and practical use is made of the material in the Commercial Museum.

10. *Labor.* B

Professor WICKER. Second Semester, 3 hrs.

A preliminary review of the economic theory of labor and wages, followed by a concrete, practical study of the present status of labor in the chief industrial nations. Among the more important topics to be treated are forms of remuneration, labor unions, strikes and boycotts, arbitration and conciliation, labor law in the United States and England. Lectures and recitations.

11. *Commercial History and Policy.* C

Professor DIXON. First Semester, 3 hrs.

Historical study of the tariff policy of the United States, with comparative study of the policy of related countries; commercial treaties, including the policy of reciprocity; navigation laws, bounties, subsidies, preferential tariffs, and the problem of our merchant marine; the commercial relation of the United States to its recently acquired possessions. Text-book, assigned readings, and reports. (Taussig's *Tariff History of the United States*, *State Papers*, and *Speeches on the Tariff*.)

12. *Studies in Statistics.* C

Professor YOUNG. Second Semester, 3 hrs.

Statistical methods are studied through their application to the investigation of various economic problems. Some attention is given to the sources and reliability of statistical data and to methods of determining the probable accuracy of the results of statistical analysis. Students are trained in the use of the graphic method as an aid in the solution of problems and in the presentation of results.

13. *The Development of Economic Thought.* C

Professor WICKER. First Semester, 3 hrs.

A survey of the history of economic theory as related to the history of economic development. It is the aim of the course to enforce and amplify the student's grasp of economic principles by a study of the development of thought in the economic field. Lectures, recitations, and reports.

14. *Present Day Economic Theory.* C

Professor WICKER. Second Semester, 3 hrs.

An advanced course in which mooted points of theory are critically studied in the works of such economists as Marshall, Böhm-Bawerk, John B. Clark, Patten, and others. This course is designed as a natural complement to the historical study in the first Semester, as outlined in Course 13. Reports and group conferences.

15 and 16. *Economic Reading.* C

Professors DIXON, WICKER, PERSON, and YOUNG.

First and Second Semesters, 1 hr.

Readings in the French and German economists with discussions. Open only by special permission to students having a good reading knowledge of French and German.

For additional courses in Economics see Tuck School Announcement.

POLITICAL SCIENCE

History 1 and 2 are prerequisites for all courses in Political Science.

1. *American Political Institutions.* A

Professor BOWMAN. First Semester, 3 hrs.

A concise survey of the origin, development, and practical working of American political institutions. This course will include an historical review of the formation of the Federal Constitution and a study of that Constitution as a body of living principles; the working relations of the Federal and State governments; the nature of the American State and the working of its government, and a brief examination of different forms of local and municipal governments. The general aim will be not only to prepare students by adequate information for the proper discharge of the duties of citizenship, but also to stimulate in them a thoughtful patriotism and quicken their sense of civic responsibility. Recitations and lectures. (Wilson's *The State*, and Bryce's *American Commonwealth.*) This course is a prerequisite for all other courses in Political Science.

2. *Comparative Constitutional Law.* B or C

Professor BOWMAN. Second Semester, 3 hrs.

A comparative study of the constitutional law and development of the United States and the principal European States, with illustrative references to Mexico, Brazil, and the lesser States of Europe. The course comprehends a study of the historical and contemporaneous relations of sovereignty and government; of the sphere of civil liberty; and of the principles and actual working of constitutional law and government in these States. Lectures and collateral reading.

3. *American Constitutional Law.* B or C

Professor COLBY. First Semester, 2 hrs.

This course is designed to give students a knowledge of the general principles of the Constitutional Law of the United States, both federal and statal. Particular attention is given to the origin and development of the written constitution in America, to the formation of the early State constitutions, and to the various sources of the Federal Constitution and to its text. Recitations and lectures. (Cooley's *Principles of Constitutional Law.*) Four hours a week for the first nine weeks.

4. *American Constitutional Law.* C

Professor COLBY. Second Semester, 1½ hrs.

Advanced course, open only to students who have taken Course 3. This course is intended for students who expect to enter the profession of law, and involves a critical examination of such parts of the Constitution as are not studied in Course 3. Recitations and lectures, supplemented by examination of leading cases. (Cooley's *Principles of Constitutional Law*, and Boyd's *Cases on Constitutional Law.*) Three hours a week for the last nine weeks.

5. *Elementary Law.* C

Professor COLBY. First Semester, 1½ hrs.

Outlines of Jurisprudence. This course is intended for students who expect to enter the profession of law, and is planned to give a general view of the whole field of the law and an introduction to its terminology and its fundamental ideas. It consists of (*a*) a brief historical survey of the Roman Law and of the English Common Law, and (*b*) a study of Robinson's *Elements of American Jurisprudence.* Recitations and lectures. Three hours a week for the first nine weeks.

6. *Elementary Law.* C

Professor BOWMAN. Second Semester, 4 hrs.

A continuation of Course 5, including selected chapters of Blackstone's *Commentaries* and Wambaugh's *Study of Cases.* Recitations and lectures.

Courses 5 and 6 are directly preparatory for the Law School. They will afford any student pursuing them with serious pur-

pose opportunity to so qualify himself by knowledge of legal ideas and terms, the main facts of legal history, and the method of legal reasoning, for the work of the Law School, that he may profit immediately from its courses of lectures and its study of cases. Any student electing Course 5 will be expected to elect Course 6.

7. *Administrative Law of the United States and the Principal European States.* C

Professor BOWMAN. First Semester, 3 hrs.

The purpose of this course is to present the general principles of administration in the United States, England, France, and Germany. Among the subjects studied are: The sphere of administration; separation of powers; administrative organization ; executive powers; departments of state ; subordinate and local administration ; powers and duties of officers; law of appointment, election, removal, and direction; rights of individuals against the administration; administration in action; control of administration by legislatures, administrative superiors, and the courts; methods of Anglo-Saxon judicial control, including a discussion of the writ of *mandamus* and other extraordinary legal remedies; administrative courts of France and Germany. (Goodnow's *Comparative Administrative Law*, and lectures.) This course should be preceded by Course 2.

8. *International Law.* B

Professor COLBY. Second Semester, 2 hrs.

This course is historical and explanatory of present international relations. It treats of the origin and development of the rules that generally govern the intercourse of modern civilized States, and their recent modifications by treaty. Recitations and lectures. (Lawrence's *International Law.*) Four hours a week for the last nine weeks.

9. *History of Political Theories.* C

Professor COLBY. First Semester, 2 hrs.

Lectures, readings and reports. This course is open only to graduate students and undergraduates whose major study is in this department.

[Not offered in 1904-1905.]

10. *Municipal Administration.* A

Professor BOWMAN. Second Semester, 2 hrs.

A study of municipal activities in the United States, England, Germany, France, and Italy. Among the subjects discussed are: the origin and evolution of the city; the city as agent of the State; the city as local corporate body; municipal organization; municipal politics and elections; municipal functions, such as education, charities, police, public works and finance; social and economic problems of cities. Lectures.

For further courses in Political Science, see Tuck School.
A Minor in Political Science is obtained by combining History 1, 2, and Political Science 1 with two courses in Political Science graded B.
A Major may be obtained by adding six hours graded C to the requirements for a Minor.

SOCIOLOGY

1. *Ethnology.* B

Professor WELLS. First Semester, 3 hrs.

This is an introductory course and should be taken by those who propose to take subsequent courses in Sociology. It considers man's place in nature, and the races and varieties of mankind. The method of treatment is both historical and descriptive. Each student is required to provide himself with a good atlas and to make constant use of the library for notes and reports. Lectures and recitations.

2. *Biological Sociology (Vital Phenomena).* B

Professor WELLS. Second Semester, 3 hrs.

This course treats of man's adjustment to his natural environment and of the way in which it determines his mode of life and his institutions, with particular reference to climatic conditions and problems of tropical colonization. It is the Biology of population, involving a study of birth rates, death rates, and kindred phenomena by the Statistical method.

3. *Anthropological Sociology* (*Social Phenomena*). C
Professor WELLS. First Semester, 3 hrs.

Its subject is the social life of to-day, particularly in America. It investigates the statistics of social conditions and social groups. This involves a study of Social Classes, Crime, Pauperism and Social Reform.

4. *Psychological Sociology* (*Social Forces*). C
Professor WELLS. Second Semester, 3 hrs.

This approaches social facts from the mental side, considering them as expressions of the human mind or products of human effort. It attempts to explain human society and human institutions from within, by the method of scientific interpretation.

Open only to those who have received the previous consent of the instructor.

For further courses in Sociology, see Tuck School.

A Minor in Sociology is obtained by taking all four courses.

A Major is obtained by combining Biology 2 and 4 with all four courses in Sociology; or by combining History 1 and Economics 1 and 2 together with all four courses in Sociology.

PHILOSOPHY

1. *Psychology.* A
Professor HORNE and Messrs. LEWIS and CHASE.
First Semester, 3 hrs.

An elementary course. Outlines of the science. Description and explanation of the phenomena of the mental life. Lectures, quizzes, and readings. (James's *Psychology, Briefer Course.*)

2. *Logic.* A
Professor HORNE. Second Semester, 3 hrs.

An introductory course. A study of the outlines of deductive and inductive reasoning with especial reference to fallacies, argumentation, the nature of thought, and the logic of certainty and probability. Recitations and readings. (Creighton's *Introductory Logic.*)

Philosophy 1 and 2 are open to Sophomores after approval by the instructor, and to Juniors and Seniors. Course 2 does not presuppose Course 1. Students of Logic will find English 9 of service to them.

3. *Advanced Logic.* B

Professor HORNE. First Semester, 3 hrs.

The Science of Thought. This course considers not the conditions under which valid thinking is possible, but the nature of thinking itself. It is the purpose of the courses in Logic to consider the place of thought in reality. Recitations, readings, and a thesis. Course 3 presupposes either Course 1 or 2. (Everett's *Science of Thought.*)

4. *Advanced Psychology.* B

Professor HORNE. Second Semester, 3 hrs.

This course is a natural continuation of Philosophy 1, which it presupposes. Special attention will be paid to the feelings and the will. It is the purpose of the courses in Psychology to acquaint college men with the essential elements of their own conscious life and with the general constituents of human nature. Recitations, readings, and a thesis. (Höffding's *Outlines of Psychology.*)

> Students of psychology will find the following courses in other departments of interest and value to them, viz., Biology 1, 1a, 2, 10, and Sociology 4.

5. *History of Philosophy.* A

Professor CAMPBELL. First Semester, 2 hrs.

Ancient Period. A study of the progressive steps in constructive thought from the earliest times to the birth of accredited Science and Philosophy at the close of the Socratic era. The History of Schools of thinking is treated in its concrete relation to national events, and involves an outline of the Philosophy of History. Lectures, recitations, and readings.

6. *Modern Philosophy.* B

Professor CAMPBELL. Second Semester, 2 hrs.

History of the national developments of philosophic thinking which have followed the Reformation, in Germany, Italy, France, Great Britain, and America; rise of great personal representatives of Modern Thought; also tendencies and Schools of Philosophy. This course may be taken without Course 5.

7. *Historical and Theoretical Ethics.* A

Professor CAMPBELL. First Semester, 2 hrs.

It is the purpose of Ethics to establish the common foundation of the Moral, Social, and Political Sciences. The Historical exhibits the progressive theories until the founding of Modern Ethics. The Theoretical is an exposition of the principles of man's moral nature, and of the laws of its development in terms of environing conditions. Lectures, discussions, and readings.

The importance of a correct knowledge of the Moral Life will commend itself. It is the intention so to arrange the schedule of studies that every undergraduate may have opportunity to elect at least one two-hour course in Ethics. Course 8 may be taken before Course 7.

8. *Practical and Systematic Ethics.* B

Professor CAMPBELL. Second Semester, 2 hrs.

Man as an ethical unit in practical affairs. A study of his mental equipment. Conscience and Will as related to responsibility. Classification of duties as Personal, Social, Civil, and Theistic. Specific facts of Personal Ethics. A study of Justice in the social medium. The law of veracity in business life. Morality in its relation to custom, fine art, and religion. Lectures, recitations, and readings.

9. *Civil Ethics.* C

Professor CAMPBELL. First Semester, 2 hrs.

A study of the moral relations of man as a civil unit. Recognition of Rights, Penalties, and Laws. Duties under free government. Problems of Suffrage and of Temperance Legislation. Rights of Labor and of Capital. Relation of ethical science to Civil Law and courts of equity and to civil processes generally. Lectures, recitations, readings, and thesis.

10. *Early Greek Philosophy.* C

Professor CAMPBELL. Second Semester, 2 hrs.

A study in the original Greek of the teachings (extant) of the Pre-Socratic philosophers. Translations and discussions. (Fairbanks's *First Philosophers of Greece.*)

Open only to Seniors who are acquainted with the Greek language. A study of the later Greek philosophy is given under Greek 7.

11. *Æsthetics.* B

Professor CAMPBELL. First Semester, 2 hrs.

Philosophy of the Fine Arts. Historical development of Architecture, Sculpture, Painting, Music, and Poetry. Recitations and lectures with photographic and stereopticon illustrations. Students choose special topics for theses to be presented to the class. (Raymond, *Genesis of Art-Form.*)

For courses in Greek and Roman Architecture, Sculpture, and Painting, see Archæology 1–6. For a course in Literary Art, see English 19; in Musical Theory, Music 3 and 4.

12. *Philosophy of Religion.* C

Professor CAMPBELL. Second Semester, 2 hrs.

The unitary in ethnic religions; the Greek Pantheon as a system of Ethics; validation of theistic ideas; rational development of the spiritual life; sacred books; claims and dominant ideas of Christianity. Among the references are: Tiele's *Science of Religion;* Campbell's *Religion in Greek Literature;* Kellogg's *Genesis of Religion;* Harris's *Philosophical Basis of Theism;* Caird's *Philosophy of Religion;* Caldecott's *Philosophy of Religion;* Fairbairn's *Philosophy of Religion and of History;* Wright's *Scientific Aspects of Christian Evidences,* — the last used as a text-book. This course is intended quite as much for all who are seeking a rational basis for religious opinions as for those who have in mind the ministerial work. Recitations, lectures, synopses of critical readings, discussions.

13. *Introduction to Philosophy.* C

Professor HORNE. First Semester, 3 hrs.

A general survey of the field of Philosophy, with especial reference to the definition of its problem, its spirit, its method, and its relation to the various sciences; the doctrine of nature and of mind, of knowledge, and of being; the reconciliation of mechanism and teleology. It is the purpose of this course to introduce men in a non-technical way to the general problems of Philosophy, and to suggest their possible solutions. Recitations, readings, and a thesis. (Paulsen's *Introduction to Philosophy.*) Open only to Seniors. Presupposes any two courses in Philosophy.

14. *Metaphysics.* C

Professor HORNE. Second Semester, 3 hrs.

The fundamental problems of Theoretical Philosophy. The conception of Reality, the Idea of God, the relations between the individual self and the world. It is the purpose of this course to enable men to frame for themselves a personal philosophy of life. Recitations, readings, and a thesis. (Royce, *The World and the Individual.*) Open only to Seniors. Presupposes any three courses in Philosophy.

15. *Applied Psychology.* C

Professor HORNE. First Semester, 1 hr.

This course is described under Education 3. Open to Seniors and Graduates.

17 and 18. *Philosophy of History.*

Professor CAMPBELL. First and Second Semesters.

Origin and development of Civilization. Critical historical studies accompanied by lectures and recitations. A good knowledge of the German language is requisite. Ancient period, first Semester; Modern period, second Semester.

19. *Philosophy of Ethics.*

Professor CAMPBELL. First Semester.

Study and discussion of Kant's *Kritik der praktischen Vernunft*, or of Green's *Prolegomena.*

20. *Philosophy of the State.*

Professor CAMPBELL. Second Semester.

Man as a philosopher, developing his political environments. Outlines of historical theories. Monarchy and its differentiations. Democracy and its limitations. Fundamental relations of Executive, Legislative and Judicial factors. Powers and functions of the modern State.

21 and 22. *Systematic Philosophy.*

Professors CAMPBELL and HORNE. First and Second Semesters.

Independent investigation at the sources of some important philosophical work, ancient or modern. Selection may be made

from Greek, Latin, German, French, or English texts. It is the aim to develop a competency for exact research according to the methods of recent literary and historical criticism.

Course 17, and the following courses are intended for graduate students, hours and days to be arranged with the instructor. They may, however, be elected by undergraduates who have made them a part of their group in Philosophy, or who have satisfied the instructor as to their competency to pursue them.

BIBLICAL LITERATURE

1. *The Early Religion of Israel.* A or B

Professor VERNON. First Semester, 3 hrs.

The course begins with a somewhat detailed examination of the Conquest of Palestine and the life of the nation in Canaan previous to the Disruption under Jeroboam I. With the results thus gained, an attempt is made to sift the traditions of the Pentateuch in order to disclose, as far as may be, the origin of the religion of Jehovah. The growth of the religion is traced until the emergence of written prophecy.

2. *Israelitish and Jewish Monotheism.* A or B

Professor VERNON. Second Semester, 3 hrs.

The course is a rapid survey of the Prophetic period of Israelitish history, of the growth of Messianic thought, of the development of Legalism, of the apocalyptic and wisdom literature, of the Maccabean uprising and dynasty and of the origin of the great Pharisaic and Sadducean movements.

This course is open, only after personal conference with the Instructor, to those who have not completed Course 1.

The object of these courses is to enable those who take them to read the Old Testament critically and appreciatively. Lectures, text-references, essays, reports of specially assigned readings, and recitations will be employed so far — and only so far — as they further this object.

Students are expected to provide themselves with the American Revised Version of the Scriptures and with H. P. Smith's *Old Testament History.*

Courses 1–2 and 3–4 are given in alternate years.

3. *The Teaching and Character of our Lord.* A or B

Professor VERNON. First Semester, 3 hrs.

The course will take up the origins of the Gospels and the leading issues in the Synoptic and Johannean problems. On the foundation thus laid the teaching will be presented, account being constantly taken of the life and thought of the times. This course will be given largely by lectures, though assigned readings and recitations will be employed as often as possible.

4. *The History of the Apostolic Age.* A or B

Professor VERNON. Second Semester, 3 hrs.

The text-book of this course is A. C. McGiffert's *Apostolic Age*, and its object to come to an adequate realization of the critical problems of the Early Church. The organization and sacraments of the churches and the far more important doctrinal controversies will be considered with great care. The books of the New Testament will be studied in their chronological order and with constant reference to the historical background. As a consequence of the course, it is hoped that the colossal greatness of Paul will be apparent, and that the meaning and grandeur of Christian Freedom will be made clear.

This course is open, only after personal conference with the Instructor, to those who have not completed Course 3.

[Courses 3 and 4 offered in 1905–1906.]

A Minor may be secured in Biblical Literature by completing the four courses, or by combining two of these courses, treated as B courses, with two courses in History or with two courses in Philosophy.

MUSIC

1. *Music as an Art.* A

Director MORSE. First Semester, 3 hrs.

A general study of the development of the art of music, designed to prepare one to understand and appreciate musical performances. No previous musical study is necessary in preparation for this course. Sound, musical sound, notation, rhythm, melody, harmony, their evolution and application in modern music. Musical forms with analyses. *Structure of Music*, Gow; *Musical Forms*, Pauer; Tyndall's *Sound;* Sedley Taylor's *Sound and Music.*

2. *Music as an Art (continued).* A

Director MORSE. Second Semester, 3 hrs.

Analyses continued. Study of the great composers, their lives, characteristics, works, and their influence upon the development of modern music. Some representative works will be studied in detail.

3 and 4. *Harmony.* B

Director MORSE. First and Second Semesters, 3 hrs.

Systematic study of intervals and chords, and their correct and effective use in four-part harmony. Ability to play four-part harmony (like a hymn tune) is necessary for this course. Emery's *Harmony;* Boise; Richter.

ARCHÆOLOGY

1. *Greek Art.* A or B

Professor G. D. LORD. First Semester, 3 hrs.

This course, beginning with an introduction on the Arts of Egypt, Assyria, and Phœnicia in their relation to Greek Art, presents the History of Greek Art in its most significant products of Architecture, Sculpture, and Painted Vases. In this course, and in those that follow, constant use is made of the Sullivan collection of photographs purchased by contributions from Alumni. Text-book supplemented by discussions, and lectures illustrated by lantern slides. Open to all Sophomores.

2. *Greek Life.* A or B

Professor G. D. LORD. Second Semester, 3 hrs.

The Life of the Ancient Greeks, particularly the Athenians, from the evidence of the Monuments and of the Literature. By manual, assigned readings, and lectures. Open to those who have passed Archæology 1 or Greek 5 and 6.

Courses 1 and 2 count as A courses for those who have not had Greek in college.

3. *Topography and Monuments of Greece.* B

Professor G. D. LORD. First Semester, 3 hrs.

This course informs the student of the sources and the more important characteristics of the materials for Greek Archæology.

Selections from Pausanias will be read, with critical commentary, covering a part of his description of the topography and monuments of Athens, Eleusis, Olympia, and Delphi. Open to those who have passed Greek 5 and 6.

Courses 3 and 3a are offered in alternate years.

3a. *Introduction to Greek Epigraphy.* C

Professor G. D. LORD. First Semester, 3 hrs.

In this course the development and the more important characteristics of Attic Inscriptions will be studied by the aid of a carefully selected collection of squeezes. The last half of the course will be devoted to the study of a limited period in Athenian history where the sources are conspicuously Epigraphical. Open only to those who have passed Greek 5 and 6.

[Offered in 1905–1906.]

4. *Greek Sculpture.* C

Professor G. D. LORD. Second Semester, 3 hrs.

Sculpture; study by readings and by lectures. Independent studies from casts and photographs are required. Ability to read French and German is very desirable for this course, but will not be required at present. Open to those who have passed Greek 5 and 6, or Archæology 1.

5. *Roman Archæology I.* B

Professor MOORE. First Semester, 3 hrs.

Architecture, with special reference to its origins, and to the modern employment of Roman forms. Themes based upon Vitruvius and Pliny the Elder, or upon recent French and German authorities.

6. *Roman Archæology II.* B

Professor MOORE. Second Semester, 3 hrs.

Painting, Mosaic, Sculpture, and the minor arts. Themes, as in Course 5.

EDUCATION

History 1 and 2, and Philosophy 1 and 2 are strongly recommended as preparation for the courses in Education.

1. *History of Education.* B

Mr. LEWIS. First Semester, 3 hrs.

This course is designed to give the student an appreciation of the meaning of Education and an acquaintance with the rise and historical solutions of its chief problems. The development of educational thought is traced in its relations to the development of civilization. Special stress is laid on education since the Renaissance. The main facts about the national school systems and the educational reformers are considered important, but no attempt is made in so brief a course to accumulate a mass of easily forgotten details. Rather the emphasis of the work is laid on an endeavor to understand the significance of the important facts for our present educational problems in the United States. Topical studies with supplementary lectures.

2. *Introduction to Educational Theory.* B

Mr. LEWIS. Second Semester, 3 hrs.

The aim of this course is to present such well accepted principles and to discuss such important problems in the field of education as will be of value to the citizen, parent, and member of school board, as well as to the teacher. The following topics indicate the nature and scope of the work: The Meaning, Scope, and Aim of Education; Individual and Social Aspects; the relation of Psychology and Ethics to Educational Theory and Practice; Factors in Education; Elementary and Secondary Schools, their Special Aims and Courses of Study; Educational Values; Correlation of Studies; Flexibility; General Principles of Method; School Hygiene; Moral Training.

Recitations, lectures, discussion, and required readings. Professor HORNE'S *Philosophy of Education* will be used as a text-book during the first part of the course.

Courses 1 and 2 are open to Seniors, and to Juniors by permission of the instructor.

3. *Applied Psychology.* C

Professor HORNE. First Semester, 1 hr.

Lecture course. Subject: the Application of the Science of Psychology to the Art of Teaching. Readings and thesis. This course is intended for Seniors and Graduates who expect to enter the profession of teaching. Philosophy 1, or its equivalent, is presupposed.

Intended for Seniors and Graduates.

A Minor in Education is obtained by combining History 1 and 2 or Philosophy 1 and 2 or Sociology 1 and 2 with Education 1 and 2.

DEPARTMENT OF PEDAGOGY

MR. F. C. LEWIS, DIRECTOR. PROFESSORS C. D. ADAMS, J. K. LORD, SHERMAN, WORTHEN, BARTLETT, PATTEN, FOSTER, W. A. ADAMS, EMERY, DOW, AND HORNE.

Education 1 and 2 are required as preparation for this work.

The aim of this department is to give men holding the bachelor's degree a year of definite preparation for the work of instruction and management in secondary schools. This aim is to meet a steadily growing demand in high schools and academies for specially trained teachers.

The work of the year consists of three related branches: (*a*) Further study of the special subject or subjects to be taught. (*b*) Practical teaching and observation. (*c*) Instruction in pedagogy.

(*a*) This branch of the work is threefold: review of the elementals of the subject to be taught; instruction in methods and devices for teaching; advanced work in the chosen subject.

(*b*) Practice teaching under constant supervision and criticism is continued throughout the entire year. The student-teacher not only instructs but identifies himself with the life in the town high school. He becomes thoroughly acquainted with the pupils and their interests; confers with the principal on matters of discipline and instruction; assists in the management of the main-room and in every way fulfils under direction precisely the functions that will be required of him when he enters his life work.

At a convenient time during the year the members of the department go to Boston to visit schools and observe model teaching. This work is carefully planned in advance. At the end of each day's visiting the men meet and under the leadership of the Instructor in Pedagogy report and discuss the day's observations. The aim of all this practical work is to make the candidates immediately more efficient as class-room teachers.

(*c*) The instruction in Pedagogy is designed, first, to supplement the practice teaching by discussing school management and the principles of general method, together with their psychological basis; second, to furnish the student under training with a breadth of view and interest in his profession which springs from an acquaintance with the variety of educational problems and the significance of educational movements; third, to acquaint the student with the literature of his profession; and, finally, to furnish him with such a knowledge of educational matters pertaining to elementary as well as secondary education that in his community he may help cultivate public opinion in the line of the best educational practice and thereby double his service.

The history of education and the principles of education offered senior year serve as an introduction to this work and are required of all who enter the department.

The following are the courses offered by the department during the year 1904–1905:

PEDAGOGY

1. *Lectures on Pedagogy.* These lectures will be supplemented by discussions, required readings and reports. Two exercises a week throughout the year.

The work will cover the following topics: The general principles of school management and method, together with the psychological basis for both briefly summarized; the problems of organization and administration, as political control, functions of school board, sanitation and hygiene, school architecture and equipment, supervision, the course of study, grading and promotion of pupils, and educational resources of the community; and finally, a brief survey of modern school systems. MR. LEWIS.

2. *Seminar in Education.* One two-hour exercise a week.

The aim of this Seminar is threefold: to develop a critical attitude toward educational problems; to review current educational literature; and to investigate, discuss, and assimilate the more important topics brought forward in the lecture course. While research work is not a central feature of this course, the methods of research will be employed to investigate various topics. Each member makes weekly reports. MR. LEWIS.

3. The members of the Department are required to elect Education 3 (Applied Psychology). This course is described under the Undergraduate Courses. PROFESSOR HORNE.

GREEK

The Greek course in Pedagogy will include a review of all preparatory work, beginning with the Greek Reader. It will involve drill in pronunciation, the study of method in teaching each subject, the discussion of the more difficult grammatical points, methods of acquiring skill in sight reading, of increasing vocabulary, and securing accuracy in detail.

Students in this course will be required to do a considerable amount of private reading in an author assigned by the instructor.

The undergraduate courses, Philology 2 and Greek 20, are essential to the work of this year, and must be elected by graduate students who have not taken them as undergraduates.

The Greek course in Pedagogy is open to students who have taken the undergraduate courses in Greek, amounting to three hours a week, at least to the end of Sophomore year, and who are, in the judgment of the instructor, fitted to begin the work of the course.

PROFESSOR C. D. ADAMS.

LATIN

The work of these courses will be of two kinds. One will be advanced study intended to enlarge the student's knowledge of the Latin language and literature, and requiring some independent research. The other will outline the work of preparation for College, and will follow it through the Latin Reader, Cæsar, and Vergil. Careful attention will be given to pronunciation, including hidden quantity, and its application to metrical reading, to syntax, to the knowledge of forms, to derivation, to reading at sight, to composition, and in general to the method and character of grammatical drill. In some cases undergraduate courses will be allowed or required in addition to the course outlined above.

Students wishing to enter the Latin courses in Pedagogy must have taken the undergraduate courses, amounting to three hours a week, at least to the end of Sophomore year, and must have given satisfactory evidence that they are qualified to enter upon the courses in Pedagogy. PROFESSOR J. K. LORD.

ENGLISH

The English course in Pedagogy will consist of the detailed study of preparatory English and of advanced work in composition and literature. The review of preparatory work will be made with constant reference to methods of teaching both literature and composition, to the consideration of text-books, and to the correction of students' written work. The advanced course will consist of instruction in composition, with constant practice, and of the careful study of certain masterpieces of English and American literature, particularly of those books which are required for entrance to College. The whole aim of the course will be to fit the students to become teachers of English in secondary schools.

The English course in Pedagogy is open to students who have taken the undergraduate courses in English at least to the end of Junior year, or their equivalent in Senior year; and who, in the opinion of the instructor in charge of the course, are competent to pursue and profit by the course. PROFESSOR EMERY.

FRENCH

The course offered in French will consist of a study and classification of French sounds, and drill in the pronunciation and reading aloud of French; a careful review of the essentials of French grammar, with exercises in composition to illustrate them; practice in writing French at dictation and in giving paraphrases and brief resumés in French of a given text; discussion of methods of teaching French and of the value and place of various authors and text-books in a graded scheme of elementary instruction in the language.

Although this course is intended primarily as a language drill, a portion of it will be devoted to the special study of an author.

PROFESSOR DOW.

GERMAN

The work will consist of direct preparation for the teaching of elementary German in preparatory schools.

Careful study of methods, the difficulties of teaching pronunciation, the subject of composition, paraphrasing, dictation, word-formation, enlarging the vocabulary. Detailed study of courses in elementary German. Discussion of text-books. The geography and leading facts concerning Germany. PROFESSOR W. A. ADAMS.

This course will be open only to those who have had three years of German, and who, in the judgment of the instructor, are qualified to pursue this course.

MATHEMATICS

The work in Mathematics will require a three-hours' course, both Semesters. Arithmetic, algebra, geometry, and trigonometry will be taken up in order, especial emphasis being laid on the work of the high schools in these subjects. A careful study will be made of at least three standard text-books in each subject; outlines will be formed and text-books compared. Methods of presenting the most important topics will be fully discussed. Each subject will be carried considerably beyond the high school limits. The historical development of each subject will be thoroughly investigated in connection with their natural order of sequence. Actual work accomplished in the class-room will be noted by personal observation throughout the year. The proper foundation for the course requires a fair knowledge of analytic geometry and calculus, and any who do not present these, on admission to the department must take a three-hours' course in each for one Semester PROFESSORS SHERMAN AND WORTHEN.

CHEMISTRY

The course includes a careful review of elementary chemistry with discussion of the method of presenting the more difficult subjects, practice in the preparation of reagents and simple apparatus, and the comparison and criticism of various elementary text-books.

Each student will also do advanced laboratory work on special lines assigned by the instructor.

The course is open to students who have completed Courses 2, 3, 4, 5, 7, or equivalents. PROFESSOR BARTLETT.

BIOLOGY

The nature of the graduate course will vary to meet the requirements of the individual. It will ordinarily consist of training in the collection and preparation of the animals and plants useful for demonstration in secondary schools; the study of their life-history as far as practical in the field; the construction of home-made apparatus, and the methods of performing such simple experiments on living organisms as are suitable for the public schools; and criticism of methods of presentation of special topics in the field, laboratory, and class-room. Opportunity will be given to obtain practical experience in teaching by assisting the regular instructors in the elementary courses.

Candidates for this course must have done creditable work representing the equivalent of six hours a week for two years in Zoölogy and Botany.

The candidates should have taken at least one three-hour Semester course in each of the following subjects: Elementary Biology, Invertebrate Zoölogy, Comparative Anatomy of Vertebrates, Cryptogamic Botany, and Phanerogamic Botany. The remaining time, of three hours for one year, may have been given to more advanced courses in either Zoölogy or Botany. PROFESSOR PATTEN.

HISTORY

The work will include (1) training in practical methods of teaching in the schools and (2) study adapted to the special needs of the individual.

1. To give clear and practical guidance in the "maze of possibilities" of the modern methods of teaching History, the student will at

once be set to reading carefully one or more of the best recent text-books in the four courses recommended for the secondary schools, and will discuss these with the instructor. He will be asked, in connection with this work, to read the Report of the Committee of Seven to the American Historical Association on "The Study of History in Schools," and to apply its recommendations by making a plan of work for at least two courses, finding a place for such definite use of text-books, supplementary reading, "sources," written work, map work, and lectures as shall interest and develop the real boy and girl in the secondary school. After studying the programmes of a few of the best schools in Germany and this country, he will be expected to observe and criticise in detail the actual work in one or two, and then attempt to adapt his plan to the actual possibilities of these schools.

2. To round out his own historical knowledge, he may be advised to take courses not already elected in college. For training in power of criticism and insight, he will be asked to read entire some one of the best examples of modern historical writing, and discuss its merits or limitations; and to present the results of his own investigation of a topic, limited in scope, based mainly on contemporary sources. This course is open to those who have taken three years of college history, or to teachers whose experience may be considered a fair equivalent for some of such courses. PROFESSOR FOSTER.

TEACHERS' CONFERENCES

A conference of teachers in secondary schools is held at the College every year. The whole time of each conference is given to the discussion of the work in some one department, or group of closely related departments.

A conference of teachers of Mathematics was held May 12 to 14, 1904. The following topics were discussed:

Mathematics for Entrance to the High School.
Historical Development of Arithmetic.
Mathematics in the Schools during the Last Twenty Years.
College Entrance Requirements in Mathematics.
Euclid and his Modern Supplanters.

Class-Room Methods in Algebra.
Correlation of Mathematics and Physics.
Graphical Methods in Arithmetic and Algebra.
Observational Geometry.
The Function of Mathematics in Modern Education.

Reports of this conference will be mailed free of cost upon application to the Director, Mr. F. C. LEWIS.

OUTLINE OF STUDIES

FRESHMAN YEAR

FIRST SEMESTER

A.B.

PRESCRIBED

	hrs.
Greek 5, or French 5, or German 5	3
Latin 1	3
English 1	2
Mathematics 1	3
Physical Culture	1
	12

ELECTIVE (choose one)

	hrs.
Greek 1, French 1, German 1	3
	3
	15

B.S.

PRESCRIBED

	hrs.
French 5, or German 5	3
English 1	2
Mathematics 3	3
Physical Culture	1
	9

ELECTIVE

(Choose one from each group)

		hrs.
Greek 1, French 1, German 1	Group I	3
Graphics 1, Physics 1, Chemistry 3, Biology 1, History 1	Group II	3
		6
		15

SECOND SEMESTER

A.B.

PRESCRIBED

	hrs.
Greek 6, or French 6, or German 6	3
Latin 2	3
English 2, 8	3
Mathematics 2, 2a	3
	12

ELECTIVE (choose one)

	hrs.
Greek 2, French 2, German 2	3
	3
	15

B.S.

PRESCRIBED

	hrs.
French 6, or German 6	3
English 2, 8	3
Mathematics 4, 6	3
	9

ELECTIVE

(Choose one from each group)

		hrs.
Greek 2, French 2, German 2	Group I	3
Graphics 2, Physics 2, Chemistry 4, Biology 2, History 2	Group II	3
		6
		15

Students presenting Mathematics II for admission will take Mathematics 3; those presenting only Mathematics I, will take Mathematics 1.

SOPHOMORE YEAR

Each student must elect 15 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 3	3	French 11	3	Physics 3	3
Greek 7	3	Spanish 1	3	Chemistry 3	3
Greek 9	3	Italian 1	3	Chemistry 5	3
Greek 15	1	German 1	3	Biology 1	3
Latin 3	3	German 3	3	Biology 1a	2
Latin 5	3	German 7	3	Biology 3	3
Latin 7	1	German 9	3	Biology 5	3
English 3	3	German 11	3	Mineralogy 1	3
English 9	3	German 13	3	History 1	3
French 1	3	Mathematics 5, 7, 9	4	History 3	3
French 3	3	Mathematics 11	4	Philosophy 1	3
French 7	2	Graphics 3	3	Music 1	3
French 9	2	Physics 1	3	Music 3	3
				Archæology 1	3

SECOND SEMESTER

	hrs.		hrs.		hrs
Greek 4	3	French 12	3	Physics 4	3
Greek 8	3	Spanish 2	3	Chemistry 2	3
Greek 10	3	Italian 2	3	Chemistry 4	3
Greek 16	1	Italian 4	2	Chemistry 6	3
Latin 4	3	German 2	3	Biology 2	3
Latin 6	2	German 4	3	Biology 4	3
Latin 8	1	German 8	3	Biology 6	3
English 4	3	German 12	3	Mineralogy 2	3
English 10	3	German 14	3	History 2	3
French 2	3	Mathematics 10, 10a	4	History 4	3
French 4	3	Mathematics 12	4	Philosophy 2	3
French 8	2	Graphics 4	3	Music 2	3
French 10	2	Physics 2	3	Music 4	3
				Archæology 2	3

JUNIOR YEAR

Each student must elect 15 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 11	3	German 9	3	Geology 3	3
Greek 13	3	German 11	3	Mineralogy 1	3
Greek 17	1	German 13	3	Mineralogy 3	3
Latin 9	1	German 17	3	History 3	3
Latin 11	3	German 19	3	History 5	3
Latin 13	3	German 21	1	History 9	3
English 5	3	Philology 1	3	Economics 1	2
English 11	3	Mathematics 13	3	Economics 3	3
English 15	3	Graphics 5	3	Political Science 1	3
French 7	2	Physics 3	3	Sociology 1	3
French 9	2	Physics 5	3	Philosophy 1	3
French 11	3	Physics 7a	3	Philosophy 3	3
French 13	3	Astronomy 1	3	Philosophy 7	2
French 17	3	Chemistry 3	3	Biblical Literature 1	3
French 19	3	Chemistry 5	3	Music 1	3
Spanish 1	3	Chemistry 7	4	Music 3	3
Spanish 3	3	Biology 3	3	Archæology 3	3
Italian 1	3	Biology 5	3	Archæology 5	3
Italian 5	3	Biology 7	3	Archæology 7	1
German 7	3				

SECOND SEMESTER

	hrs.		hrs.		hrs.
Greek 12	3	Italian 6	3	Biology 10	3
Greek 14	3	German 8	3	Geology 2	3
Greek 18	1	German 12	3	Geology 4	3
Greek 20	3	German 14	3	Mineralogy 2	3
Latin 10	1	German 18	3	Mineralogy 4	3
Latin 12	3	German 20	3	History 4	3
Latin 14	3	German 22	3	History 6	3
Latin 16	2	Philology 2	1	History 10	3
Latin 18	3	Mathematics 14	2	Economics 2	2
English 6	3	Engineering 2	3	Economics 4	3
English 16	3	Physics 4	3	Political Science 2	3
French 8	2	Physics 6	3	Sociology 2	3
French 10	2	Physics 8	3	Philosophy 2	3
French 12	3	Astronomy 2	3	Philosophy 4	3
French 14	3	Astronomy 6	3	Philosophy 8	2
French 18	3	Chemistry 4	3	Biblical Literature 2	3
French 20	3	Chemistry 6	3	Music 2	3
Spanish 2	3	Chemistry 8a	4	Music 4	3
Spanish 4	3	Chemistry 8b	4	Archæology 4	3
Italian 2	3	Biology 4	3	Archæology 6	3
Italian 4	2	Biology 6	3		

SENIOR YEAR

Each student must elect 12 to 15 hours.

FIRST SEMESTER

	hrs.		hrs.		hrs.
Greek 11	3	Astronomy 7	3	Economics 11	3
Greek 13	3	Chemistry 5	3	Economics 13	3
Greek 17	1	Chemistry 7	4	Economics 15	1
Latin 9	1	Chemistry 15	4	Political Science 3	2
Latin 11	3	Biology 7	3	Political Science 5	1½
Latin 13	3	Biology 9	4	Political Science 7	3
English 5	3	Biology 13	3	Sociology 3	3
English 11	3	Histology 1	3	Philosophy 3	3
English 17	3	Anatomy 1	3	Philosophy 5	2
English 19	3	Physiology 1	3	Philosophy 7	2
French 13	3	Medical Physics 1	3	Philosophy 9	2
French 17	3	Geology 5	3	Philosophy 11	2
French 19	3	Geology 7	3	Philosophy 13	3
Spanish 3	3	Mineralogy 3	3	Biblical Literature 1	3
Italian 5	3	History 3	3	Archæology 3	3
German 11	3	History 5	3	Archæology 5	3
German 17	3	History 9	3	Education 1	3
German 19	3	Modern History 2	3	Education 3	1
German 21	1	The Far East 3	3	Tuck School	18
Mathematics 15	3	Economics 5	3	Thayer School	18
Physics 9	3	Economics 7	3	Medical School	18
Astronomy 3	3	Economics 9	3		

SECOND SEMESTER

	hrs.		hrs.		hrs.
Greek 12	3	Mathematics 18	3	The Far East 6	3
Greek 14	3	Physics 10	3	Economics 6	3
Greek 18	1	Astronomy 4	3	Economics 8	3
Greek 20	3	Astronomy 8	3	Economics 10	3
Latin 10	1	Chemistry 6	4	Economics 12	3
Latin 12	3	Chemistry 8a	4	Economics 14	3
Latin 14	3	Chemistry 8b	4	Economics 16	1
Latin 16	2	Chemistry 16	3	Political Science 4	1½
Latin 18	3	Biology 10	3	Political Science 6	4
English 6	3	Biology 12	3	Political Science 8	2
English 20	3	Biology 14	2	Political Science 10	2
English 22	3	Biology 16	1	Sociology 4	3
French 14	3	Histology 2	2	Philosophy 4	3
French 18	3	Bacteriology 2	3	Philosophy 6	2
French 20	3	Anatomy 2	3	Philosophy 8	2
Spanish 4	3	Physiology 2	3	Philosophy 10	2
Italian 6	3	Geology 8	3	Philosophy 12	2
German 12	3	Mineralogy 4	3	Philosophy 14	3
German 18	3	History 4	3	Biblical Literature 2	3
German 20	3	History 6	3	Archæology 4	3
German 22	3	History 10	3	Archæology 6	3
Mathematics 16	2	The Far East 4	3	Education 2	3

REGULATIONS

I. REGISTRATION

All undergraduate students are required to register before the opening of the year, on Wednesday from 4 to 5 P.M., or on Thursday from 8 to 9 A.M. Any undergraduate failing to register at the appointed time will be charged with overcuts until the time of his registration at the Dean's office unless previously excused.

All students entering College (this rule includes all students entering upper classes) must register with the Dean during the three days previous to the opening of the year, and must receive matriculation papers from the President before entering upon the work of the College.

II. ATTENDANCE AT EXERCISES

Attendance is required of all undergraduates at recitations and lectures continuously through each Semester according to the time-table of the studies pursued. Attendance is required also at College prayers, on week days at 7.50 A.M., and on Sundays at 5.30 P.M.

A student may absent himself from seven chapel services in each Semester; and from each course of instruction as many times as the course is scheduled exercises per week, without affecting his standing, provided, however, that he meets all the requirements of the instructor.

These allowed absences cannot be taken *immediately preceding* or *following* a recess or vacation.

Each unexcused absence from recitation in excess of those allowed above shall entail a deduction of *four* points from the mark in the course in which the absence occurred; and for each absence in excess of the allowed number from chapel, a deduction of *one* point shall be made from the student's general average; when his general average is brought below 50 by excess of chapel absences he shall be required to take additional hours of recitation work, the amount to be determined by the Committee of Administration.

The Medical Director has sole charge of all excuses for absence occasioned by sickness, but under the Physicians' certificate system no excuse will be allowed for the first day's absences for sickness.

The Committee on Athletics has sole charge of all excuses for absence granted to the various Athletic teams.

The Committee on Organizations other than Athletics has sole charge of all excuses for absence granted to the various organizations under its control.

The Dean has power to grant excuse for absence for all other causes. All applications to the Dean for excuse for absence shall be made in writing, with full statement of reasons, and shall be presented in person. A blank form will be furnished at the office. They must be in advance, if possible. If, by reason of impossibility, they are not made in advance, they must be made within three days after the expiration of the period of absence, and must contain a full statement of the reason for the delay in presentation.

Absence from any exercise shall not release the student from the responsibility for the work required of other students, or which would have been required of him if he had been present.

If a series of *excused* absences includes two or more consecutive exercises in any course, written permission to make up these exercises shall be issued by the Dean or Registrar, and it shall specify the time within which, subject to the convenience of the instructor, all work shall be made up.

Students absent from any course for two-thirds of that course, and students whose absences from a Laboratory or Lecture Course amount to more than one-third of the exercises, shall receive no credit for such course.

III. SCHOLARSHIP

The general average of the marks of each student for the several departments shall be ascertained every Semester, each course having weight in proportion to the number of exercises assigned to it, and the relative importance of recitation and examination (in each course) depending upon the nature of the course and the method of instruction.

This general average shall be the student's scholarship mark for the Semester, subject, however, to a deduction for excess of absences.

When a student has met all the requirements of a course, a single numerical mark shall be recorded, indicating that he has *passed* in the

course. When a student's deficiency is of such a nature that it can be made up by examination or in any other way than by repeating the course, he shall be reported as *deficient*, with an accompanying statement as to the manner in which the deficiency is to be made up. When a student's failure is of such nature that no credit can be given him for the course, he shall be reported as *failed*.

A statement of scholarship rank and absences is sent twice annually to the parent or guardian of each student. The scholarship rank shall be designated as follows: A (90–100); B (80–90); C (70–80); D (60–70); E (50–60).

Students whose standing for the whole College course averages 85, or more, receive Commencement Appointments.

Freshmen whose attendance is unsatisfactory, or who have serious *deficiencies* in scholarship, or who have *failures* reducing their credit to less than ten hours, or who, having entered on condition, show by the unsatisfactory character of their current work that they are unable to continue without further preparation, shall be dropped from College at the close of the first Semester.

A student reported as *failed* in any course of Freshman year or in any course in a group of electives essential to a degree must make up that course with the next class, except that a failure in the first Semester of Senior year may be made up by an equivalent course in the second Semester, assigned by the Committee of Administration, and that a failure in the second Semester of Senior year may be made up by examination not later than the last Saturday before Commencement. A fee of five dollars shall be paid into the College Treasury for each examination so given.

IV. EXAMINATIONS

The regular examinations in each course of study are held in the middle and at the close of the year.

A student reported as *deficient* in any course whose deficiency is of such a nature that it can best be made up by examination, shall be given an opportunity to do so at the date assigned for the deficiency examination in that course; deficiencies of the first semester shall be made up during the following Easter recess, those of the second semester during the week preceding the opening of the next college year.

A student can have only one trial for making up his deficiency in any course; if a student then fails he shall receive no credit for that course. A student who, for any reason, is absent from the regular examination of a course will be allowed but one opportunity for making up his deficiency.

Students are required to be present promptly at the hour named for the examination, and no one is admitted after seven minutes have elapsed.

An unexcused absence from an examination shall entail a reduction of *ten* points from the final mark in that course. The Dean alone has power to excuse from an examination.

Any student proved to have been dishonest in examination shall be deemed to have forfeited his right to be a member of the College, and shall be permanently separated therefrom.

V. ENROLLMENT IN CLASSES

A student shall be enrolled in the Freshman class until he has completed at least twenty-two Semester hours of work, and has removed all entrance conditions; he shall then be enrolled in the Sophomore class until he has completed fifty-four Semester hours, including all requirements of Freshman year; then in the Junior class until he has completed at least eighty-six Semester hours; then in the Senior class until he has completed one hundred and twenty-two Semester hours, which is the requirement for a degree. Beginning with the class of 1908 the above requirements will be two hours less in each case. A Freshman who has failed to be promoted with his class must repeat all courses in which he has failed, and may take additional courses with the higher class to fill out the number of hours required; such students must arrange their schedules in consultation with the Dean.

VI. COLLEGE ORGANIZATIONS

No Athletic contest shall take place before 4 P.M., except on Saturday afternoon and holidays, unless by special permission of the Committee on Athletics.

The names of all candidates for the various athletic teams must be furnished to the Committee on Athletics and to the Dean, to be posted

on the bulletin board not later than October 1st, December 1st, and April 1st for the autumn, winter, and spring contests, respectively.

No special student, or one who is objected to by the Committee of Administration, or who fails to meet the requirements of the Faculty shall be allowed to be a member of any athletic team or other organization representing the College.

RELIGIOUS SERVICES

Prayers are conducted by the President each week-day morning in Rollins Chapel, and a vesper service is held on Sunday. All undergraduate students are required to be present.

While the service on Sunday in Rollins Chapel is the recognized service for all students, insuring unity in the worship of the College, provision is made for the attendance of students at the churches of the town. The hour of Chapel Service has been fixed in the latter part of the day to enable students to attend a morning service in the churches of their respective faiths. The churches in Hanover are the old College Church (Congregational), St. Thomas Church (Episcopalian), and St. Denis Church (Roman Catholic).

At the College Church the service of a Board of Preachers has given place to the constant service of a Pastor, the Reverend Ambrose W. Vernon, who is also Phillips Professor of Biblical Literature. The attention of the students is particularly called to the opportunity for Biblical Study through the courses offered by Professor Vernon, — see page 145.

Bartlett Hall offers ample and attractive rooms for the use of the College Young Men's Christian Association. The Association is in charge the present year of Mr. A. K. Skinner as Secretary, a graduate of 1903, to whom all communications may be addressed in regard to the religious work of the College, or the religious life of the students.

The Brotherhood of St. Andrew maintains an organization among the students connected with St. Thomas Church.

EQUIPMENT

THE LIBRARY

In its several collections, the College Library represents the accumulations of a century and a quarter. It originated in valuable gifts of books to the first President from English and Scotch societies for promoting religious knowledge; also, from the Rev. John Erskine, Mr. William Dickinson, and others. Similar benefactions have followed, among the more important of which are the Johnson, Phillips, Shattuck, Shurtleff, Parker, Smith, Appleton, Bond, Grimes, and Chamberlain donations.

For many years separate libraries were sustained and managed by the public literary societies of the students, known as the Social Friends and the United Fraternity. The Philotechnic Society, organized at a later date among the students of the Chandler School, also made important additions to these collections.

In 1874 the different libraries were consolidated, and put under the control of the College, but the principle of voluntary contribution, by which the collections were so largely gathered, is still maintained, and the annual sum of six dollars is collected from each student, for convenience, with the tuition. According to the agreement through which this annual assessment is made, the selection of books to the value of several hundred dollars yearly is devoted to works of general and popular interest.

The main collection, numbering about 100,000 volumes and 20,000 pamphlets, with a large accumulation of newspapers and manuscripts, is in Wilson Hall, a commodious and convenient fire-proof building, constructed after approved plans of library architecture. The building is heated by steam, and, including the stack-room, lighted by electricity. The books are arranged according to the "expansive system," so modified as to correspond as nearly as possible to the departments of instruction in the College. There is a card catalogue of authors, and also a classed catalogue of subjects arranged by titles.

The general and departmental reference library, which consists of books reserved for general reference and collateral reading, occupies

two rooms on the upper floor, and is open throughout the day and evening. This department contains about 10,000 volumes, which are classified according to subjects, arranged upon open shelves with a few exceptions, and may be loaned for the night. This department is under the supervision of the Superintendent of Reference Rooms.

The transfer has been made of the standard books in literature including fiction to a separate room, where there may be free access to the shelves. The object of this transfer is to allow the greatest familiarity on the part of students with books of the greatest literary value. It is the desire of the management of the Library that students should not only read individual books but that they should know books and authors as making up a library. Books may be taken from the shelves of this room for use in the room, or they can be charged at the counter under the usual rules for the drawing of books.

In an adjacent room may be found current files and bound volumes of leading periodicals.

Wilson Hall also contains over one hundred portraits in oil, and a good collection of photographs for the illustration of art and archæology, coins, curios, etc.

There are department libraries at the Medical School, the Tuck School, the Observatory, the Thayer School building, the Y. M. C. A, Rooms, as well as in the Physical, Chemical, Geological, Botanical, and Zoölogical Laboratories, and in the rooms occupied by the departments of Greek, Latin, and Social Science.

The rooms in Wilson Hall formerly used for offices of college administration are now used for collections on the subject of education for the special benefit of the Faculty.

Books may be drawn for two weeks, excepting certain volumes so indicated, which have been added during the college year, and may be retained but one week. Undergraduates may have four books at a time; resident graduate students, ten; alumni, four. Persons not connected with the College may use the Library upon the payment of four dollars yearly.

The reading and reference rooms are open on week days from 9 A.M. to 10 P.M.; on Sunday the reading room is open from 1.30 to 5.30 P.M.

The Library is open for drawing books from 9 A.M. to 12 M., and from 1 to 5 P.M.

Special attention is given to bibliology, supervision of courses of reading, and personal assistance.

ARCHÆOLOGICAL AND ART COLLECTIONS.

A working collection of casts and photographs for Greek and Roman Archæology is in Room S, Butterfield Museum; this large and well lighted room is also used for recitations and Seminary work in this department.

During the year the College has received the gift of $5000 from Henry Lynn Moore, of Minneapolis, class of 1877, as a memorial to his son, Guernsey Centre Moore, who died in 1901 in the midst of his college course: the income from this fund is to be used for the "purchase of objects of Artistic merit and value." At the beginning of the next Academic year, courses in the history of Modern Art will be introduced under the direction of Mr. Homer Eaton Keyes, now in Europe on leave of absence.

BUTTERFIELD MUSEUM

By the will of the late Ralph Butterfield, M.D., of Kansas City, of the Class of 1839, the College was made the residuary legatee of his estate, in a sum estimated at one hundred and sixty thousand dollars, "for the purpose of founding and forever maintaining a chair and professorship for the purpose of lectures, recitations, and general instruction in paleontology, archæology, ethnology, and other kindred subjects; and for the erection of a building to cost not less than thirty thousand dollars, for the purpose of keeping, preserving, and exhibiting specimens illustrating the aforesaid branches. It is to be optional with the Trustees either to establish a professorship or a series of lectures at stated periods, on the subjects mentioned."

In accordance with the expressed wish of the donor, the Butterfield Museum, a granite and Roman brick structure, one hundred and forty-five by fifty-five feet in dimension, of three stories and a basement, has been erected, and is now occupied by the various departments indicated in the above bequest. Special facilities are offered for instruction in Geology and Mineralogy, in Zoölogy and Botany, and in Archæology and Sociology.

The collections in Geology and Biology are arranged in the Butterfield Museum. They consist of the Frederick Hall collection of minerals and rocks, the Henry Fairbanks collection of birds and insects, restorations of large extinct animals, an extensive herbarium, collections illustrative of archæology, conchology, economic geology,

and numerous other specimens, besides topographical models, and a special collection of the rocks of New Hampshire and Vermont, gathered under the auspices of the Geological Survey of New Hampshire. Recently a collection of great value, comprising fifteen hundred specimens of gold, silver, copper, lead, and zinc ores from a section of Montana, forming a complete history of the mineral development of the region, has been presented to the Museum by Clinton H. Moore, Class of 1874, of Butte, Montana.

A valuable Ethnological collection occupies a room at the east end on the second floor and the unsurpassed specimens of Assyrian Sculpture are arranged along the walls of the adjoining hall.

The main Biological Laboratory is a large room eighty-four by thirty feet, on the north side of the first floor. It is used for the elementary biology courses. A similar room in the basement is used for the work in mammalian anatomy and in the comparative anatomy of vertebrates. Adjoining this laboratory is a thoroughly equipped macerating-room. At the west end of the first floor is the laboratory for the embryology course and for the advanced workers. At the east end is a library, and also a Botanical Laboratory.

In addition to the above-named rooms are five private rooms for instructors, a chemical room, two storerooms, and in the basement a room for live animals and the herbarium. All the laboratories are well equipped with the apparatus necessary for practical biological work.

PHYSICAL LABORATORY

The Wilder Laboratory, the gift of the late Mr. Charles T. Wilder, of Wellesley, Mass., has been occupied since its completion in the summer of 1899 by the department of Physics. The building has a frontage of one hundred and seven feet, and a depth of fifty-six feet, and a rear projection of fifty-five by thirty-five feet.

The laboratories, lecture and recitation rooms occupy three stories and a basement. The basement contains a well equipped workshop and a dynamo room, magnetic and electrical laboratories, a storage-battery room, and a laboratory for constant-temperature experiments. A large lecture room (seating 200 persons), arranged for lantern projection, and equipped with many conveniences for the purpose of general lectures in physics, is on the first floor. The floor is further divided into offices for the members of the department, two recitation

rooms, an electrical laboratory, and an apparatus room. The general laboratory provided for students in the first course in practical physics occupies a section of the second and third floors. The remainder of these floors is given up to the departmental libraries in physics and astronomy, two apparatus rooms, a chemical kitchen, two suites of rooms for assistants in the department, an unpacking room, and eleven laboratories planned with reference to special work in optics, spectrometry, photometry, photography, acoustics, electric waves, and the heat spectrum.

The building is heated by steam (both direct and indirect radiation) and lighted by electricity. It is supplied, throughout, with water, illuminating gas, and air under pressure; and a part of the building is provided with connections for oxygen and hydrogen gases. The laboratories and lecture rooms are connected by separate circuits with a large switchboard in the basement, so that the electrical power of the generators and storage battery is accessible to all parts of the building. Each room is further provided with a separate signal circuit connecting it with a telephone switchboard on the second floor so that time signals may be sent, and other electric communication is easily possible between different parts of the building.

The equipment of the department with instruments and apparatus is being carried forward by the income from funds left the department by Mr. Wilder. The present equipment is adequate for the needs of the lectures in general physics, the junior course in practical physics, and for the advanced courses which are offered.

The nearness of the physical laboratory to the astronomical observatory affords to either department the resources of the other.

OBSERVATORY

The Shattuck Astronomical and Meteorological Observatory is used for the purposes of instruction. It is provided with a telescope by Clark, having an aperture of 9.4 inches, and a focal length of 12 feet, a spectroscope, a four-inch meridian circle, a three-inch transit and zenith telescope by Saegmuller, sextants, clocks, chronograph, and level-trier.

CHEMICAL LABORATORY

The chemical Laboratories are on the first and second floors of Culver Hall. The first floor is occupied by the lecture room, store-

rooms, and the laboratory for elementary chemistry and qualitative analysis. The large northeast room on the second floor is a well-equipped quantitative laboratory, and adjoining rooms are used for balances and library. The large southeast room has recently been fitted up to meet the modern requirements of an organic laboratory, including complete equipment for organic analysis.

In all the courses chemistry is taught by laboratory work, enforced by informal lectures, demonstrations, and short recitations.

CHANDLER HALL

Through the bequest of the late Frank Willis Daniels, of the Class of 1868, Chandler Hall, recently known as Moor Hall, has been purchased, reconstructed, and enlarged, and fitted for the special uses of the departments of Mathematics and Graphics. The first floor furnishes a large lecture room, accommodating over two hundred persons, and rooms for the elementary courses in engineering; the second floor provides four well arranged rooms for recitation work in mathematics, with private offices for the instructors; the third floor furnishes rooms for recitations, and one large room for mechanical drawing, with lighting from above.

The basement is devoted to testing and experimental work in the department of Engineering.

GYMNASIUM AND ATHLETIC FIELD

The Gymnasium is open daily for the use of the students, and during the winter season a regular exercise is required of all members of the Freshman class, and voluntary divisions are formed among members of the other classes. The aim is to reach the large body of students who do not enter into athletic contests, rather than to train athletes.

Through the generous contributions of many of the alumni, an admirable athletic field, with modern improvements, has been laid out near the College buildings. It is provided with all the necessary facilities for base-ball, foot-ball, track athletics, and tennis; including a grand-stand seating six hundred spectators and containing dressing rooms and shower-baths for the use of the students.

All candidates for the Athletic Teams must be examined by the Instructor in Physical Culture before they can be accepted as mem-

bers of a team, and each team is under medical supervision during the period in which it is engaged in sports.

The Instructor in Physical Culture who is also Director of the Gymnasium takes the measurement of all students entering College, and conducts the Gymnastic exercises for the Freshman Class during the winter months. The Gymnasium and Athletic Field are in his charge.

The general supervision of athletics in the College is committed to an Athletic Council, consisting of three non-resident alumni, three members of the Faculty, and three undergraduates.

Students are admitted to golf and tennis privileges of the Hanover Country Club at moderate rates by the month or season.

WATER SUPPLY

A system of waterworks, established in 1893 at an expense of $65,000, furnishes, in connection with the aqueduct before in use, an ample supply of water for all purposes. During the last year, the whole area of 1200 acres included within the water-shed has been purchased to insure the purity of the water supply. The precinct is supplied with a thorough system of sewers.

HEATING AND LIGHTING PLANT

In 1898 the College adopted the method of heating its buildings from a central station, and constructed a plant on the most approved plan at a cost of $60,000; twenty of its buildings, dormitories, and recitation halls are heated in this way, ensuring a nearly equable temperature.

During the present year an electrical plant is being added for lighting all the buildings of the College through its own service, and also for power when motors are needed.

HOSPITAL

In case of illness, the Mary Hitchcock Memorial Hospital, constructed upon the latest modern plans, and widely known, since its opening in 1893, as one of the best cottage hospitals in the country, furnishes the students such care and comfort as is seldom found out-

side of the larger cities. A bed is furnished by the College, to meet the needs of students who are unable to bear the expenses of sickness.

The Hospital is under the management of physicians and surgeons who are connected with the Dartmouth Medical School, and students who enter the Hospital are in charge of members of the Hospital Staff. In the case of students whose parents would prefer to have them treated exclusively by the family physician, the College has made arrangements through which suitable rooms can be secured where the family friends or physician can be in attendance.

All the College buildings are under the direct care and inspection of Dr. Howard Nelson Kingsford, the Medical Director, and every case of illness among the students reported to him receives immediate attention.

THE COLLEGE INN

The Trustees have entirely reconstructed and refurnished the College Inn, known as the Hanover Inn, for the entertainment of alumni, and friends of the students. The Inn is under the management of Mr. Arthur P. Fairfield, of the Class of 1900. Circulars giving all information in regard to location of rooms, prices, etc., can be obtained from him. The College Inn is open during the entire year.

RAILROAD CONNECTIONS

The railroad station is known as Norwich and Hanover, on the Passumpsic Division of the Boston and Maine Railroad. White River Junction, four miles south of Hanover, is the centre of four lines of railroads: the Concord Division (Boston and Maine system), making connection with Concord, Manchester, Nashua, Lowell, and Boston (four hours and forty minutes to Boston); the Central Vermont Railroad and the Connecticut River Division (B. and M. R. R.), making connection with Springfield, Hartford, New Haven, and New York (eight hours to New York); and also connecting at Greenfield (Fitchburg R. R.) and Springfield (Boston and Albany R. R.) for the West; the Central Vermont Railroad, making connection with Montpelier, Burlington, and the West (thirty hours to Chicago); the Passumpsic Division (B. and M. R. R.), making connection with Wells River, St. Johnsbury, Montreal, and Quebec (eight hours to Montreal).

COLLEGE DORMITORIES

The dormitories of the College are intended to accommodate about two-thirds of the students in attendance, the other third finding rooms in private houses; so far as possible these houses are inspected by the Medical Director, but the College cannot assume the same responsibility for their sanitary condition as for that of the dormitories. Students who prefer to room in private houses are advised to inquire at the Dean's office in reference to their sanitary condition.

The dormitories are heated by steam, lighted by electricity, and are abundantly supplied with water-closets and bathrooms; with three exceptions they have full janitor service.

Thornton and Wentworth Halls accommodate forty-five students each; having a few single rooms, and twenty suites for two or three.

Reed Hall accommodates about sixty students; having fourteen single rooms, seventeen suites for two, and four suites for three.

Hallgarten Hall accommodates about forty students; having eleven single rooms, fourteen suites for two, and one suite for three. Rooms in Hallgarten do not have janitor service.

Bartlett Hall accommodates about ten students; having four suites for two or three. Rooms in Bartlett Hall do not have janitor service.

Elm House accommodates about twenty students: having four single rooms, and eight suites for two. Rooms in Elm House do not have janitor service.

Sanborn House, erected in 1894, accommodates about fifty students; having six single rooms, twenty-two suites for two, and one suite for three.

Crosby House, erected in 1896, accommodates about forty-five students; having one single room, twenty-one suites for two, and one suite for three. Sixteen of these suites are provided with fireplaces.

Richardson Hall, erected in 1897, accommodates about fifty students; having eight single rooms and twenty-two suites for two. Sixteen of these suites have fireplaces and six have fireplaces and private bathrooms.

Fayerweather Hall, erected in 1900, accommodates about eighty-five students; having twenty-three single rooms and thirty-one suites for two.

College Hall, erected in 1901, accommodates about forty students; having thirteen single rooms and fourteen suites for two.

Proctor House, rebuilt in 1903, accommodates twelve students; having two single rooms, two suites for two, and two suites for three, each suite having a fireplace.

Hubbard House, renovated in 1904, accommodates about twenty students; having four single rooms, eight suites for two and one suite for three. Two suites have fireplaces.

All rooms in the College buildings, except College Hall, are unfurnished. In College Hall the bedrooms are furnished with bedsteads, mattresses, chiffonieres, and chairs, if desired.

The College is now erecting a new dormitory to accommodate about one hundred students, to be ready for occupancy in September, 1905. There will be thirty-four single rooms and thirty-two suites for two. Many of these rooms will have fire places and private toilets, and each floor will be abundantly supplied with shower-baths and toilets.

ASSIGNMENT OF ROOMS

Students rooming in the College buildings may retain their rooms from year to year by giving written notice to the Registrar before March 20. The rooms not thus re-engaged are offered to the classes in order of seniority. Applications for rooms must be made to the Registrar in writing, and assignments will be made in order of application.

One student may hold or engage one-half of a double room, but if by June 1 he has failed to secure a room-mate, he will be obliged to relinquish his claim to the room or become responsible for the full rental for the year.

Students expecting to enter College may at any time make application to the Registrar to have their names put on the permanent list for the assignment of rooms. Beginning on May 10 of each year, the rooms which have not been engaged by the men in College will be offered to the members of the incoming class in the order of application. If by July 20 any applicant for a room has failed to file his

entrance papers with the Dean, his assignment will be cancelled and the room will be let to another applicant.

Each student renting a room must sign a contract binding him to pay the rent of the room and to occupy the room in person through the entire College year. No student will be released from the rental of his room except by special permission of the Dean. The right to occupy a College room is given only to the student to whom the room is assigned and to his room-mate. Neither transfers nor exchanges are allowed. For any violation of this rule, each student taking part in the transaction will forfeit his room for the year, and will not be allowed to room in the College dormitories during the remainder of his course.

The time for which the rooms are rented begins on the Thursday before the opening of the College year and ends on the Monday after Commencement. However, rooms in College Hall, with the exception of those occupied by Seniors, are rented with the understanding that they are to be vacated on the Friday preceding Commencement for the use of the alumni.

The occupants of a room in the College buildings will be held responsible for any disorder or damage occurring therein.

Students leaving College at the end of the year, as well as those who are to change from one room to another, or from a College room to a private house or to a fraternity house, must remove all furniture and other property from their rooms on or before the Monday after Commencement. Furniture not thus removed will be removed by the College authorities and stored at the owner's expense and risk.

PRICES OF COLLEGE ROOMS FOR 1904–1905

In each case the price is for the whole room for the year. For a description of the dormitories see pages 177–178.

A diagram giving the location of each room or suite of rooms, with dimensions, number of occupants allowed, and price, will be sent upon application to the Registrar.

FOR ONE OCCUPANT

$30. Elm, No. 11; Hallgarten, Nos. 14, 27, 28, 29, 30.

$36. Hallgarten, No. 21.

$40. Elm, No. 12; Fayerweather, No. 36; Hallgarten, Nos. 9, 19, 26; Hubbard, No. 14.

$45. Elm, Nos. 8, 13.
$50. College, Nos. 12, 26; Crosby, No. 23; Fayerweather, Nos. 24, 29; Hubbard, No. 15; Richardson, No. 22; Sanborn, Nos. 24, 27.
$55. College, Nos. 1, 9; Hallgarten, Nos. 23, 25.
$56. Reed, No. 20; Thornton, No. 3.
$60. College, Nos. 13, 27; Richardson, No. 13; Sanborn, Nos. A, 26, 28; Thornton, No. 4.
$64. Thornton, No. 7a.
$65. College, No. 23.
$70. Fayerweather, Nos. 39, 40; Hubbard, Nos. 1, 3; Proctor, No. 8; Sanborn, No. 29; Thornton, No. 5.
$75. Fayerweather, Nos. 45, 46, 51, 52.
$80. Fayerweather, Nos. 3, 4, 9, 10, 15, 16; Reed, No. 5.
$85. College, Nos. 10, 24; Fayerweather, Nos. 2, 38.
$90. College, Nos. 11, 25; Fayerweather, No. 41; Proctor, No. 4.
$95. Fayerweather, Nos. 47, 53.
$100. Fayerweather, Nos. 5, 11, 17; Richardson, No. 28.
$110. Richardson, Nos. 10, 27.
$120. College, Nos. 14, 28; Richardson, No. 18.
$130. Richardson, Nos. 9, 19.

FOR TWO OCCUPANTS

$70. Bartlett, No. 4.
$80. Bartlett, No. 1; Fayerweather, Nos. 33, 34; Hallgarten, Nos. 15, 16, 17, 18; Hubbard, No. 15.
$90. Bartlett, No. 3; Elm, Nos. 4, 5, 9; Hallgarten, No. 20; Reed, Nos. 6, 8.
$95. Reed, No. 4.
$96. Hallgarten, Nos. 5, 7, 11, 13.
$100. Bartlett, No. 2; College, No. 8; Elm, Nos. 1, 10; Fayerweather, No. 35; Hallgarten, Nos. 6, 8, 10, 12, 22; Reed, Nos. 10, 12, 14, 30; Thornton, Nos. 20, 22; Wentworth, Nos. 4, 20, 22.
$102. Reed, No. 29.
$104. Thornton, No. 12; Wentworth, No. 12.
$105. Reed, Nos. 3, 11, 15.
$106. Reed, Nos. 31, 32.

$110. College, No. 22; Elm, Nos. 2, 7; Hallgarten, No. 24; Reed, Nos. 7, 9, 13, 27, 28, 33, 34, 35, 36; Sanborn, Nos. 10, 18; Thornton, Nos. 7b, 18; Wentworth, Nos. 2. 5, 18.

$112. Thornton, Nos. 17, 19, 21, 23, 24; **Wentworth, Nos. 1, 3, 7, 11,** 17, 19, 21, 23, 24.

$114. Reed, No. 24; Thornton, No. 11.

$116. Reed, No. 18.

$120. Crosby, No. 17; Elm, No. 6; **Fayerweather, Nos.** 1, 19, 37; Hubbard, No. 9; Reed, **Nos.** 2, 22; **Sanborn,** Nos. 17, 19, 21, 23; **Thornton, Nos.** 10, 13, 15; **Wentworth,** Nos. 9, 10, 13, 15.

$122. Reed, Nos. 25, 26.

$124. Reed, No. 21; Thornton, Nos. 1, 2, 8; **Wentworth,** No. 8.

$130. Fayerweather, Nos. 6, 7, 13, 20, 21, 23, 28, 42, 43, 49; **Hubbard,** No. 10; Reed, No. 23; Richardson, Nos. 1, 2, 23, 24; Sanborn, Nos. 2, 9, 20, 22, 24; Thornton, No. 9.

$132. Reed, No. 19; Thornton, No. 16; Wentworth, No. 16.

$140. Crosby, Nos. 16, 22; Fayerweather, Nos. 12, 18, 25, 26, 30, 31, 48, 54; Hubbard, Nos. 12–13–16; Reed, Nos. 1, 16, 17; Sanborn, Nos. 3, 5, 7, 11, 13, 15.

$150. Crosby, No. 7; Fayerweather, No. 22; Hubbard, Nos. 4, 5, 15; Richardson, Nos. 5, 6, 14, 15; Sanborn, Nos. 1, 4, 6, 8, 12, 14, 16.

$160. College, No. 7; Crosby, Nos. 1, 14, 19; Fayerweather, Nos. 8, 14, 27, 32, 44, 50; Hubbard, No. 7; Proctor, Nos. 1, 5.

$170. College, No. 21; Crosby, Nos. 3, 9; Hubbard, No. 2.

$180. College, Nos. 2, 4, 5, 16; Crosby, Nos. 2, 11, 15, 18; Proctor, Nos. 2–3; Richardson, No. 4.

$190. College, Nos. 18, 19; Crosby, No. 4.

$200. College, Nos. 6, 20; Crosby, Nos. 5, 6, 10, 21; Proctor, Nos. 6–7; Richardson, No. 3.

$210. Richardson, No. 30.

$220. College, No. 3; Crosby, Nos. 8, 13, 20; Richardson, Nos. 25, 26, 29.

$240. Crosby, No. 12; Hubbard, Nos. 6–8.

$250. College, No. 17; Richardson, Nos. 7, 8, 12, 16, 17.

$260. Richardson, Nos. 11, 20.

$280. Richardson, No. 21.

FOR THREE OCCUPANTS

$120. Hallgarten, No. 22.
$135. Reed, Nos. 33, 34.
$162. Reed, No. 15.
$165. Reed, No. 23.
$168. Reed, No. 19.
$220. Fayerweather, Nos. 41–42.
$230. Fayerweather, Nos. 5–6.
$235. Fayerweather, Nos. 47–48, 53–54.
$240. Fayerweather, Nos. 11–12, 17–18; Proctor, Nos. 2–3.
$270. Crosby, No. 8; Proctor, Nos. 6–7.
$300. Hubbard, Nos. 6–8.
$330. College, No. 17.

COLLEGE HALL WITH COMMONS

With a view to the proper development of the social life of the College, the Trustees have erected College Hall, situated on the west side of the Campus, with a frontage of eighty feet on Main Street and of one hundred and twenty feet on Wheelock Street. The building also carries an extension for a dining-hall fifty feet by eighty-five feet, two stories in height, and finished in Old English Oak, capable of providing for five hundred students at meals. The dining-hall when used for other purposes will seat a thousand.

The lower floor of College Hall is divided into parlors, reading rooms, and club rooms, accommodating the various College organizations. Several of these rooms are accessible from the general dining-hall, and may be used by the alumni at Commencement, or at other times, for class suppers.

The second and third floors are arranged in suites of rooms or in single rooms for the ordinary use of students, and for the use of the alumni at Commencement. For this latter use they are supplied with necessary articles of furniture. A few rooms on the second floor are reserved for the alumni who may wish to visit Hanover at any time while the College is in session.

In the basement, which was planned for such uses, are a large billiard room, grill room, and the various working rooms connected with the dining-hall.

The Dining-Hall Association, open to the Faculty and to all students, is a co-operative body governed by a President and Board of Directors, elected by the Association. Board is furnished at cost under a system of *à la carte* service. The bill of fare offers a wide range of choice in regard to the variety as well as the cost of board. To insure against loss to the Association, a bond, signed by two responsible parties, is required of each member, or a membership fee of five dollars together with such occasional deposits as may be sufficient to secure the payment of board in advance. The whole management is under the supervisory control of a Committee of the Faculty, and the Medical Director is detailed to make frequent inspection of the plant.

COLLEGE BILLS

Each student is charged one hundred dollars for tuition. A further charge of twenty-five dollars is made for certain general privileges, including the use of Library, membership in College Hall, and the various advantages growing out of the increase of the College plant.

Room-rent in the College dormitories is determined by the choice of rooms, heat, care, etc.

The College bills of each year are to be paid in four instalments:

Tuition, in equal semi-annual payments on the first day of October and of March, in each year; room-rent, in semi-annual payments on the first day of December and of May, in each year.

Students on entering College must pay tuition for the first Semester before matriculation.

By "tuition" is meant the first two items under expenses given in this catalogue, or $125.00; by "room rent" is meant cost of room, electric lights, damages to room, and everything pertaining to the occupancy of a room.

Any delay in payment beyond ten days from these dates, without excuse from the Dean, will subject the student to loss of standing. Any students failing to make payment within this time will be entered upon the books of the Treasurer as delinquents, and will be so reported to the Dean, and notification of the delinquency will be given to parents or guardians.

Students electing Laboratory courses must pay the fee to the College Treasurer before entering the course, and show receipt to Instructor at the first exercise.

Students delinquent in the payment of College bills at the close of the College year will not be allowed to enter the next year until these bills have been paid.

Members of the Senior Class whose College bills remain unpaid will not be admitted to the final examinations in June.

A graduation fee of eight dollars is charged all students taking the bachelor's degree.

No student will be dismissed from College on request unless he shall have paid all his College bills, including the current Semester; nor shall any student be entitled to a degree until all his College bills are discharged.

Entering students who have been granted scholarship aid will be credited with $20 on their College bill of the first Semester, leaving $42.50 balance to be paid before matriculation; if the scholarship of such student, to be determined at the end of the first Semester, entitles him to a larger credit, allowance will be made upon the College bill of the second Semester.

Students receiving beneficiary aid only to the amount of $40 will pay $42.50 each Semester.

Students receiving scholarship aid to the amount of $50 will pay $37.50 each Semester.

Students receiving scholarship aid to the amount of $60 will pay $32.50 each Semester.

Students receiving scholarship aid to the amount of $70 will pay $27.50 each Semester.

All students not receiving scholarship aid will pay $62.50 each Semester.

Electric lights, 16 candle-power, including lamps, are furnished at $7 a year per lamp.

EXPENSES

Expenses may be estimated as follows:

Tuition	$100.00		$100.00
College Expenses	25.00		25.00
Text-books	10.00	to	20.00
Laboratory Fees (if courses elected)	6.00	to	15.00
Room-Rent	20.00	to	150.00
Fuel and lights	16.00	to	45.00
Board from $3.00 to $5.00 a week	108.00	to	180.00
Washing	15.00	to	30.00
	$300.00	to	$565.00

Room-rent, fuel, and lights are estimated on the supposition that two students occupy the same room.

Expenses such as furniture, fraternity fees, class-taxes, travelling expenses, etc., vary according to circumstances, and with the character and habits of the individual, and are not included in the above estimate.

No one is advised to attempt a college education until he can assure himself, through the aid of friends, or through his own previous earnings, of a sufficient amount to meet the expenses of the first year. The opportunities for self-help increase during one's college course; it is very rarely the case that one may expect to secure such employment at the beginning as will enable him to meet his expenses.

SCHOLARSHIPS

THE HENRY ELIJAH PARKER FELLOWSHIP

This Fellowship is based upon a fund bequeathed to Dartmouth College by Professor Parker who was Professor of the Latin Language and Literature in Dartmouth College from 1866 to 1896, the last four years as Professor Emeritus.

The value of the fellowship is $500 a year, and may be held for two years. The holder of the fellowship shall be a graduate of not more than one year's standing, recommended by the Faculty. If judged advisable by the Faculty, he may be allowed a year for special preparation before entering upon the duties of his fellowship or receiving the income attached to it. During the time in which he is upon the fellowship he shall pursue advanced studies, not professional, subject to the approval of the Faculty. He shall also regard himself as committed to an engagement as a teacher in the College for the year after his fellowship expires, in case the College requires his services, at the usual compensation for the grade of his appointment.

RESIDENT GRADUATE SCHOLARSHIPS

Six scholarships, yielding three hundred dollars each for one year, have been provided for graduates of the College who wish to continue their studies in residence. These scholarships are designed particularly for those who intend to teach, but are not limited to those who have this end in view.

THE SCHOLARSHIP SYSTEM BASED ON BENEFICIARY AID

For Scholarship honor irrespective of beneficiary aid, see page 198.

Scholarships, in distinction from prizes, are designed to aid those who are chiefly dependent upon their own exertions in securing a College education. It is not expected that those whose ordinary expenses can be met by parents or through other sources will apply for beneficiary aid.

While scholarship aid is based upon pecuniary need, the amount of this aid above forty dollars is determined by actual proficiency in scholarship, taken in consideration with faithfulness in attendance and study.

The following rules govern the bestowal of beneficiary aid, and apply to all scholarships: —

(1) All applications must be made on blanks furnished by the Dean, which require the signatures of parties concerned and testimonials in respect to character and attainments.

(2) No student who is not in full standing shall receive beneficiary aid or a scholarship.

(3) In addition to the restrictions which may be imposed by the donors of scholarships, the conditions of careful economy in personal expenses and of abstinence from intoxicating liquors are imposed by the College.

(4) Applications for the renewal of beneficiary aid and scholarship from year to year must be made out on blanks furnished at the Dean's office, and must be filed at his office by June 1; each application must contain a complete statement of income and expenditure during the year preceding.

(5) The value of the scholarship in addition to the beneficiary aid will be determined semester by semester according to the rank of the previous semester. In Freshman year the rank of the first semester will determine the amount of scholarship for that year.

(6) Students, whose records are incomplete, must pay their College bills on the basis of beneficiary aid only; when the work of the previous semester is completed, credit will be given according to standing.

GRADATION OF SCHOLARSHIPS

The system of scholarships based upon beneficiary aid will follow the grades which determine the standing of a student in College, see page 165.

Beneficiary aid to the value of $40 will be given for grade D, but will not be given below that grade except in cases of marked faithfulness in attendance and study.

Scholarship allowance begins with grade C; grade C entitles the recipient to $50, grade B to $60, grade A to $70.

ENTRANCE SCHOLARSHIPS

(Applicable to those entitled to beneficiary aid.)

Four entrance scholarships of the value of $100 each will be assigned to those members of each incoming class who enter by examination with a rank of at least grade B. These scholarships will be assigned in order of rank.

The examination for these scholarships must be taken at the College or at places specified in the catalogue (pp. 66-67) at the June examinations. This examination cannot be divided between preliminaries and finals, nor between the June and September examinations.

COLLEGE SCHOLARSHIPS

(Applicable to those entitled to beneficiary aid.)

Four scholarships of the value of $100 each will be given in the order of rank irrespective of class to those students who attain the highest standing for the year, provided that standing is above 92.

These scholarships will be announced on July 15 of each year, and the amount of such scholarship in excess of credit allowed during the year on any other scholarship will be paid at that time.

LOAN FUNDS

THE JOHN H. PEARSON FUND.

The Trustees of the John H. Pearson Fund have given to the Trustees of Dartmouth College a certain sum, to be used as a loan

fund for the benefit of New Hampshire students who are in Dartmouth College. It has been assumed by them that there are students who would prefer to receive aid through loans *rather than through scholarships.*

Under the terms of this loan, a student who is in pecuniary need, in place of beneficiary aid, may give his note, subject to the approval of his father, though not calling for his endorsement if the student is a minor. The note shall not bear interest while the student is in College. If extended for four years after graduation it shall bear interest at four per cent; if extended beyond four years it shall bear interest at six per cent. If a student leaves College without graduation, interest shall begin at once at six per cent.

The College Fund

A similar fund is available (within the limit of $3000) under like conditions for students from *outside of* New Hampshire.

The rules governing the granting of a loan are the same as those governing the bestowal of beneficiary aid; see page 188.

SOURCES OF INCOME FOR BENEFICIARY AID AND SCHOLARSHIPS

I — From lands and funds given by the State of New Hampshire, with an annual income equivalent to sixty scholarships of $1,000 each. These scholarships are limited to residents of the State.

II — From funds amounting to $11,000 given by Jeremiah Kingman, of Barrington, New Hampshire, to found the "Kingman Scholarships," eleven in number. "In applying the income annually of one thousand dollars, the preference shall be given to some student from the town of Strafford; and in applying the income of the other ten thousand dollars, preference shall be given to one student from each of the ten counties in the State of New Hampshire."

III — From funds amounting to $10,000 given by Mrs. Betsey Whitehouse, of Pembroke, New Hampshire, to establish the "John S. Jenness Foundation." By the provisions of the donor, "A worthy and needy applicant from each of the ten counties of the State of New Hampshire shall receive, by preference, the income of one of these

scholarships." Another gift by Mrs. Whitehouse is included in the general list of $1,000 scholarships.

IV — From funds amounting to $27,000 given chiefly by churches in the state and intended in the first instance for students studying for the ministry.

V — From funds given to found separate scholarships of the value of $1,000 each. The list is as follows: —

The Aiken Scholarship given by Jonas B. Aiken of Franklin, N. H.
The William Lawrence Baker Scholarship given by Mrs. Caroline A. Lawrence of Winsted, Conn.
The George W. Benson Scholarship given by Mrs. Maria T. Benson of Lawrence, Mass.
The Richard Boylston Scholarship given by the family of Richard Boylston of Amherst, N. H.
The Joseph P. Brooks Scholarship given by Joseph P. Brooks of Chicago.
The Emily Clark Brown Scholarship given by Edward J. Brown, M.D., of Minneapolis, Minn.
The Burleigh Scholarship given by George W. Burleigh of Great Falls, N. H.
The Samuel M. Burnside Scholarship, bequest of Harriet P. F. Burnside of Worcester, Mass.
The Carr Scholarship given by William Carr of Newport, N. H.
The Cilley Scholarship given by Jacob G. Cilley of Manchester, N. H.
The Lizzie C. Converse Scholarship given by Miss Sarah E. Converse of Burlington, Vt.
The Cushing Scholarship given by G. W. B. Cushing of New York City.
The Dodge Scholarship given by William E. Dodge of New York City.
The Edgell Scholarship given by George S. Edgell of New York City.
The John M. Ellis Scholarship given by Mrs. Josephine M. Ellis of Milford, N. H.
The Horace Fairbanks Scholarship given by Horace Fairbanks of St. Johnsbury, Vt.
The Thaddeus Fairbanks Scholarship given by Thaddeus Fairbanks of St. Johnsbury, Vt.
The Fairfield Scholarship given by Josiah H. Fairfield of Hudson, N. Y.
The Fogg Scholarship given by William H. Fogg of New York City.
The Gookin Scholarship given by Warren D. Gookin of New York City.
The Greene Scholarship given by William H. Greene of Buffalo, N. Y.
The Mary Harris Scholarship given by Mrs. Mary Harris of Manchester, N. H.
The Tracy H. Harris Scholarship given by Tracy H. Harris of New York City.
The Mrs. Adaline Hartshorn Scholarship given by Mrs. Adaline Hartshorn of Manchester, N. H. (awarded preferably to sons of missionaries).

The Hitchcock Scholarship given by Hiram Hitchcock of Hanover, N. H.
The Hunt Scholarship given by Seth B. Hunt of New York City.
The Hutchinson Scholarship given by John B. Hutchinson of New York City.
The Leonard Jewett Scholarship given by Rev. Leonard Jewett of Hollis, N. H.
The Governor Jordan Scholarship.
The Kendrick Scholarship given by Professor Henry I. Kendrick of West Point, N. Y.
The Kittredge Scholarship given by Moses Kittredge of St. Johnsbury, Vt.
The Knight Scholarship given by Miss C. Knight.
The Mary Langdon Scholarship given by William T. Savage, D.D., of Godfrey, Ill.
The Lawrence Scholarship given by Aaron Lawrence of Amherst, N. H.
The Lue Lawrence Scholarship given by Miss Sarah Lucretia Lawrence of Amherst, N. H.
The Lockwood Scholarship given by Legrand Lockwood of New York City.
The Mary H. Lord Scholarship given by Mrs. Mary H. Lord of Andover, Mass.
The Nesmith Scholarship given by George W. Nesmith of Franklin, N. H.
The Daniel Nettleton Scholarship given by Fred H. Nettleton of St. Paul, Minn.
The William W. Niles Scholarship given by William W. Niles of New York City.
The Parker Scholarship, Memorial of Edith Florence Parker, given by Joel Parker, LL.D., of Cambridge, Mass.
The Peaslee Scholarship given by Professor Edmund R. Peaslee, M.D., LL.D., of New York City.
The Frederick C. Perry Scholarship, bequest of Henrietta Perry.
The William Rand Scholarship, from Estate of William Rand of Rochester, N. H.
The Richards Scholarship given by Dexter Richards of Newport, N. H.
The Joel Richardson Scholarship given by James B. Richardson, LL.D., of Boston, Mass.
The John Jones Sargent Scholarship given by Jonathan E. Sargent, LL.D., of Concord, N. H.
The David A. Simmons Scholarship given by David A. Simmons of Roxbury, Mass.
The Stanton Scholarship given by Samuel Stanton of London, Eng.
The Stephen N. Stockwell Scholarship given by Stephen Stockwell of Boston, Mass.
The Stone Scholarship given by Mrs. Benjamin P. Stone of Concord, N. H.
The Tenney Scholarship given by William Tenney of Hanover, N. H.
The William C. Todd Scholarship given by William C. Todd of Atkinson, N. H.

The Trussell Scholarship given by J. Trussell of Canaan, N. H.

The Twombly Scholarship given by Horatio N. Twombly of New York City.

The John S. Wallace Scholarship given by Mrs. Celia Whipple Wallace of Chicago.

The Thomas Whipple Scholarship given by Mrs. Celia Whipple Wallace of Chicago.

The Mrs. Betsey Whitehouse Scholarship given by Mrs. Betsey Whitehouse of Pembroke, N. H.

The George F. Wingate Scholarship given by Isabel C. Wingate of Exeter, N. H.

The Dutton Woods Scholarship given by Miss Maria Woods of Concord, N. H.

The Woodward Scholarship given by Dr. Ebenezer Woodward of Quincy, Mass.

VI. From funds given to found separate scholarships as follows:

The Bouton Scholarship given by the family of Nathaniel Bouton, D.D., of Concord, N. H.	$1500
The George E. Chamberlain Scholarship given by Mrs. Addie D. McAlpine of New York City	5000
The Mary Clark Scholarship given by bequest of Mrs. Mary Clark of Portsmouth, N. H.	2000
The Richard Foster Scholarship given by Sarah B. Foster of Washington, D. C.	2500
The Gordon Scholarships given by Nathaniel Gordon of Exeter, N. H.	2000
The Grimes Scholarship and The Mrs. James W. Grimes Scholarship given by James W. Grimes, LL.D., of Burlington, Ia.	2000
The Haven Scholarships given by bequest of Eliza A. Haven to establish six scholarships	9000
The Emily Wheelock Hill Scholarship given by Caroline Wheelock Hill of Wilkinsonville, Mass.	2500
The Ephraim E. Howard Scholarships given by James T. Howard of St. Johnsbury, Vt. By the provisions of the donor not available at present.	6600
The John S. Jenness Foundation given by John S. Jenness	10,000
The Henry G. Jesup Scholarship given by Professor Henry G. Jesup, Hanover, N. H.	1200
The David Jewett Scholarship given by W. R. and D. B. Jewett	2000
The Henry H. Ladd Scholarships given by Henry H. Ladd of Portsmouth, N. H.	5000

The Betsey R. Lang Scholarships
given by Mrs. Betsey R. Lang of South Boston, Mass. . . $5000
The Sarah Reid McMurphy,
The Henry James McMurphy,
The Abby Frances McMurphy Scholarships
given by bequest of Mrs. Sarah R. McMurphy of Derry, N. H. . 5000
The William G. Means Scholarships
given by William G. Means of Boston, Mass. 2000
The Morton Scholarship and
The Daniel O. Morton Scholarship
given by Levi P. Morton of New York City 2000
The Albert Onion and
The John P. Williams Scholarships
given by Mrs. Abigail W. Onion of Chester, Vt. . . . 2000
The Ann L. Paige Scholarship
given by bequest of John C. Paige of Boston, Mass. . . . 4000
The Smyth Scholarship Fund
from Estate of Frederick Smyth of Manchester, N. H. . . 5000
The Mary M. S. Spaulding Scholarship
given by Mrs. Mary M. S. Spaulding of Groton, Mass. . . 5000
By the provisions of the donor not available at present.
The Samuel Swan Scholarship and
The Janet Swan Scholarship
given by Miss Elizabeth S. Swan of Peterborough, N. H. . . 2000
The Wheeler Scholarships
given by David E. Wheeler of New York City 2000
The Dr. Chase Wiggin Scholarship
given by Dr. Chase Wiggin of Providence, R. I. . . . 2300
By the provisions of the donor two-thirds of the income is awarded.
Luke Wood Fund for Scholarships
Bequest of Martha W. Brown of Hartford, Conn. . . . 4850
The "Class of 1876" Scholarship
given at their 25th reunion. 2500
The "Class of 1877" Scholarship
given at their 25th reunion (incomplete) 2525

When the funds above referred to are insufficient to meet the demands of the Scholarship System based upon beneficiary aid, the scholarship fund is supplemented by an appropriation of the requisite amount from the general fund.

Some additional aid is furnished in the way of compensation to those students who are appointed by the Dean as monitors and by the Librarian as assistant librarians.

PRIZES

I. ORATORICAL PRIZES.

1. *The Benjamin F. Barge Prize.* Through the recent gift of $2,500 by Mr. Benjamin F. Barge of Mauch Chunk, Pennsylvania, a graduate of Yale, but a member for one year of the Class of '57, Dartmouth, a *gold medal* of the value of $100, is to be awarded annually "to that member of the Senior Class in any collegiate department or course, who, in competition therefor, shall write and pronounce in public an English oration in the best manner."

2. *Class of 1866 Prizes.* Two prizes, of *thirty* and *twenty* dollars respectively, annually contributed by WALDEMER OTIS, of New York City, in the name of the CLASS of 1866, are offered to the Junior and Sophomore Classes for excellence in Original Orations, to be contested for by two students from each of these classes.

3. *The Rollins Prizes.* The sum of *one hundred* dollars, annually contributed by E. W. and F. W. ROLLINS, is awarded in three prizes of *forty*, *thirty-five*, and *twenty-five* dollars respectively, for excellence in Declamation, to be contested for by two students from each of the three lower classes in the College.

4. *The Smith Prizes.* Two prizes, of *thirty* and *twenty* dollars respectively, given by PROFESSOR JUSTIN H. SMITH, are offered to the Senior Class for excellence in Extemporaneous Oratory, to be contested for by four students.

II. RHETORICAL PRIZES.

1. *The Grimes Prizes.* Two prizes, of *twenty-five* and *fifteen* dollars respectively, given by JAMES W. GRIMES, LL.D., of Iowa, are offered to the Senior Class for excellence in English Composition.

2. *The Lockwood Prizes.* Two prizes, of *twelve* and *eight* dollars respectively, given by LEGRAND LOCKWOOD, of New York, are offered to the Junior Class for excellence in English Composition.

3. *Pacific Coast Alumni Association Prize.* A prize of *fifteen* dollars, given by the Dartmouth Alumni Association of the Pacific Coast, is offered to the Sophomore Class for the best essay on a subject in American Literature.

4. *Literary Prizes.* Two prizes of *twenty-five* dollars each are offered for the best story and the best poem written by undergraduates during the academic year 1904–1905. Stories and poems may, at the option of the writers, be printed in *The Dartmouth Magazine* or elsewhere, prior to the award.

III. LATIN PRIZES. Two prizes, of *twelve* and *eight* dollars respectively, established by the CLASS of 1846, are offered to the members of the Junior Class who shall maintain the best positions, and pass the best examinations in the studies of the Latin Department, including Latin Composition.

IV. GREEK PRIZES. Two prizes, of *twenty-five* and *fifteen* dollars respectively, established by the joint gift of EDWARD SPALDING, LL.D., and JOSIAH G. DAVIS, D.D., and named the ATHERTON PRIZES, are offered to the members of the Junior Class who shall maintain the best positions and pass the best examinations in the prescribed and elective studies of the Greek Department.

V. MATHEMATICAL PRIZES. Two prizes, of *twenty-five* and *fifteen* dollars respectively, given by GENERAL SYLVANUS THAYER, LL.D., of Braintree, Massachusetts, are offered to the members of the Sophomore Class for excellence in Analytic Geometry and the Differential and Integral Calculus.

VI. MODERN LANGUAGE PRIZE. By the will of THOMAS J. W. PRAY, M.D., of Dover, New Hampshire, the sum of *one thousand* dollars has been bequeathed to the College, "the income of which shall be given to the best scholar, throughout the entire collegiate course, in Modern Languages."

VII. PRIZE FOR GENERAL IMPROVEMENT. A prize of *seventy* dollars, given by JAMES W. GRIMES, LL.D., is annually awarded to "that member of the Senior or Graduating Class, who, in the judgment of the College Faculty, has made the most satisfactory progress during his College course, taking into consideration his preparation for the course when he entered."

VIII. MECHANICAL DRAWING. Two prizes, of *fifteen* and *ten* dollars respectively, are offered by CHARLES R. SPALDING, B.S., of

Chicago, to the members of the Junior Class (Chandler Scientific Course), for the best sets of Mechanical Drawings, comprising Isometrical, Tinted, and Descriptive Geometry Drawings, and Surveying Plots.

IX. GEOLOGICAL PRIZE. CLINTON H. MOORE, Class of 1874, of Butte, Montana, offers to the undergraduate students in Geology and Mineralogy for the present year a prize of *twenty* dollars, for the best essay upon a topic assigned by himself.

X. PHILOSOPHICAL PRIZE. HON. JOSEPH STORY of Boston, Mass., has established an annual prize of *twenty-five* dollars "to be used for the publication of the best thesis on a subject in Philosophy, presented by any member of the Senior Class."

XI. THE DANTE PRIZE. THE DANTE SOCIETY of America offers an annual prize of *one hundred* dollars for the best essay on a subject drawn from the life or works of Dante. The competition is open to students and graduates of not more than three years' standing of any college or university in the United States. All inquiries concerning subjects for this year and regulations governing the competition should be addressed to the Secretary of the Society, Professor F. N. Robinson, Cambridge, Mass.

HONORS

COMMENCEMENT APPOINTMENTS

The speakers at Commencement are appointed by the Faculty on the basis of excellence in general scholarship for the entire College course.

RUFUS CHOATE SCHOLARS

Students who attain a rank of 92 are designated "Rufus Choate Scholars." The designation is entirely a term of honor and carries with it no pecuniary allowance. The assignment is made at the close of each year, and the names of such scholars are to be announced by the Dean, and published in the annual catalogue.

HONORS

For excellence in special departments of study, three grades of honors are awarded by the Faculty, — Honorable Mention, Honors, and Special Honors.

HONORABLE MENTION

Honorable Mention is awarded in the following courses of study to students who obtain an average rank of 92 per cent in the courses specified below for each department:

GREEK, for Courses 5a, 6a, and any two of the courses in the group 7 to 10.
LATIN, for Courses 1, 2, 3, 4; or for Courses 1, 2, 3 or 4, and 5 or 6.
ENGLISH, for Courses 1, 2, 3, and 4; or for Courses 1, 2, 9, and 10.
FRENCH, for any *four* of the following Courses: 1, 2, 3, 4, 5, 6, 11, 12.
GERMAN, for Courses 1, 2, 3, and 4; or for Courses 5, 6, 7, and 8.
MATHEMATICS, for Courses 1, 2, 2a, 5, 7, 9, 10, and 10a; or for Courses 3, 4, 6, 8, 11, and 12.

GRAPHICS, for Courses 1, 2, 3, and 4.
PHYSICS, for Courses 1, 2, and 3 or 5.
CHEMISTRY, for Courses 2, 3, 4, and 5 or 7.
ZOÖLOGY, for courses in Biology 1, 1a, 2, 3, and 4.
BOTANY, for courses in Biology 1, 1a, 2, 5, and 6.
GEOLOGY, for Courses 2, 3, 5.
MINERALOGY, for Courses 1, 2, 3, and 4.
HISTORY, for Courses 1 and 2, and any two courses in Junior year.
ECONOMICS, for Courses 1, 2, and any other two courses.
POLITICAL SCIENCE, for Courses 1, 3, and 8.
POLITICAL SCIENCE, for Courses 3, 8, and Economics 1 and 2, and History 4 or 6.
PHILOSOPHY, for Courses 1, 2, 7, and 8.

The names of students receiving Honorable Mention are printed in the annual catalogue published next after the award.

HONORS

Honors are awarded in the following departments of study to students who maintain an average rank of 92 per cent in the courses specified below for each department, and who in addition pass with credit a special examination at the close of the work:

GREEK, Courses 15, 16 and one three-hour course in each Semester of Junior and Senior years, including Greek 20 and Archæology 3 or 4.
LATIN, one three-hour course in each Semester of Junior and Senior years.
ENGLISH, Courses 1, 2, and 3, 4, or 9, 10, and 5, 6, 15, 16.
FRENCH, Courses 9, 10, or 11, 12, and any two of the following courses: 13, 14, 15, 16, 17, 18, 19, 20.
GERMAN, any three of Courses 7, 8, 9, 11, 12, 13, 14, and Courses 17, 18.
MATHEMATICS, Courses 9, 10 and 10a, or 11 and 12, and 13, 14, 15, 16, 18.
GRAPHICS, all courses in Civil Engineering.
PHYSICS, Courses 3, 4, 5, and any one of Courses 6, 7, 8, 9, 10.
CHEMISTRY, Courses 2, 3, 4, 5, 7 or 8b, and either 6 or 8a.
ZOÖLOGY, courses in Biology, 4, 7, 9, 10.
BOTANY, courses in Biology, 5, 6, and any two of the following courses: 7, 12, 13, 14.
MINERALOGY, Courses 1, 2, 3, 4, and Geology 3 and 4.
HISTORY, four courses, not included in Honorable Mention.
SOCIOLOGY, all the undergraduate courses.
PHILOSOPHY, Courses 4, 5, 12, 13.

SPECIAL HONORS

Special Honors are awarded in the departments specified below to those who fulfil the conditions mentioned hereafter.

Any student who attains the average rank of 85 per cent in the studies of Junior year, or who attains 92 per cent in any department, with an average of at least 80 per cent in all departments, in the studies of Sophomore and Junior years, will be allowed to become a candidate for Special Honors in any department in which he has attained a rank of 90 per cent. Students who are thus entitled to become candidates for Special Honors, and who wish to do so, must give written notice to that effect to the Dean of the Faculty and to the officer in charge of the department in which Special Honors are sought, on or before the 15th of October of their Senior year, and must fulfil the following conditions:

(a) They must take the elective courses indicated below in the department in which they seek Special Honors, and must also pursue such additional courses of study and collateral reading or investigation as shall be prescribed. At the close of the year they must pass a special examination covering their work in the department, including the courses of collateral reading or investigation presented for Special Honors, and designed to test the range and accuracy of their work.

(b) They must also, if required, present theses satisfactory to a committee appointed by the Faculty, embodying the result of their special study. The subjects of theses shall be announced not later than March 1, and the theses must be handed to the Dean of the Faculty not later than June 10 of Senior year.

(c) They must maintain their general standard of scholarship, and if their average rank falls below 80, or if it falls below 70 in any one department in any Semester, they will be required to discontinue their work for Special Honors.

(d) No student will be allowed to become a candidate for Special Honors in more than one subject, without a special vote of the Faculty.

Special Honors may be sought in the following departments:

GREEK — Continuous work in Greek throughout the course, covering all Greek courses of Freshman year, two courses in Sophomore year, one of which must be a three-hour course, and an average of four hours a week in

Junior and Senior years. This work must include Greek 15, 16 and 20 and Archæology 3 or 4. The candidate will do additional work, equivalent to at least one three-hour course for a year, to be assigned at the opening of Senior year; he will be examined on this work and on his general attainments in Greek at the end of Senior year. A thesis is required.

LATIN — Work in the elective courses of Junior and Senior years amounting to four hours a week; an examination on the work of some Latin author not covered in the course, and also a general examination upon Latin Literature, with more special reference to the period to which the particular author studied belonged. A thesis is required.

ANCIENT CLASSICS — Courses in Greek and Latin covering an average in each of three hours a week in Junior and Senior years. Special study in one of the two languages amounting to the work of a three-hour course for Senior year will be required, and the final examination will cover this study, as well as the general work in the two languages. A thesis in connection with the subject of special study may be required.

ENGLISH — Eight courses, with examinations on all courses of Junior and Senior years, and upon two authors outside the course, amounting to three hours for Senior year. A thesis will be required.

FRENCH — Any *six* of the following courses: 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20. A thesis will be required.

GERMAN — Courses 13, 14, and any two of Courses 7, 8, 9, 11, 12, and any three of Courses 15, 16, 17, 18, 19, 20, 22, with collateral reading and study. A thesis will be required.

MATHEMATICS — All courses, and advanced work in Calculus, and its applications. A thesis may be required.

PHYSICS — Courses 1, 2, 3, 4, 5, and any three of Courses 6, 7, 8, 9, 10, with the solution of some simple research problem described in a thesis.

CHEMISTRY — Courses 2, 3, 4, 5, 6, 7, 8a, and 12, 15, 16, or corresponding courses. A thesis may be required.

ZOÖLOGY — Courses in Biology 1, 1a, 2, 3, 4, 7, 9, 10, 18, and either 5 or 6, with special laboratory work and collateral reading amounting to a minimum of 3 hours per week for Senior year.

BOTANY — Courses in Biology 1, 1a, 2, 5, 6, 7, 12, 15, 16, and either Courses 3 or 4, with collateral reading and such additional work as may be indicated by the instructor, amounting to a minimum of three hours per week for Senior year. A thesis may be required.

MINERALOGY — Courses 1, 2, 3, 4, and Geology 3 and 4, together with special investigation of economic collections, the theories of the formation and grouping of complex silicates, and the application of the principles of

petrography to material of an assigned area. The whole must amount to a minimum of three hours per week for Senior year. A thesis may be required.

HISTORY — Candidates must take all elective courses offered by the department, together with additional courses of study, collateral reading, and investigation. At the close of the year they must pass a special examination covering the work of the department and the additional work.

ECONOMICS — All courses, with collateral reading and study amounting to three hours a week for Senior year.

POLITICAL SCIENCE — Courses, 3, 4, 5, 6, with collateral reading and study amounting to three hours a week for Senior year.

PHILOSOPHY — Candidates must take at least eight courses, and do original, critical work in Greek philosophy, or in German philosophy. Thesis will be required.

Any student who has an average rank for his entire college course of 90 per cent, or who has received Honorable Mention in two departments and Honors in one department, or who has received Honorable Mention in one department and Special Honors in another, shall receive a degree *cum laude*.

Any student who has an average rank for his entire college course of 92 per cent, or who has received Honorable Mention and Honors in two departments, or who has received them in one department together with Special Honors in another, shall receive a degree *magna cum laude*.

Any student who has an average rank for his entire college course of 94 per cent, or who has received Honorable Mention and Honors in two departments, together with Special Honors in any department, shall receive a degree *summa cum laude*.

The names of recipients of Honors are printed on the Commencement programme and in the annual catalogue.

DEGREES

The degrees of Bachelor of Arts, Bachelor of Letters, and Bachelor of Science are conferred by the Board of Trustees, on the recommendation of the Faculty, upon those who have duly completed the Classical, Latin-Scientific, and Chandler Scientific courses, respectively. For degrees with Honors, see page 202.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy will be conferred under the following conditions:

(1) The degree of Master of Arts will be conferred upon Bachelors of Arts and Bachelors of Letters of the College of at least one year's standing who shall have pursued in residence at the College, or, provided the approval of the Faculty shall have been first obtained, in the graduate department of any other College or University, for one full year a course of graduate study approved by the Committee on Graduate Instruction as affording suitable preparation for that degree, and shall have completed and passed an examination upon such course of study with high credit and presented a satisfactory thesis.

The study approved by the Committee on Graduate Instruction for the degree of Master of Arts may consist of:

(a) Courses of instruction of advanced grade, four such courses ordinarily being required to constitute a full year's work, or the work may be partly or wholly made up of

(b) Research or special study, either in connection with, or outside the courses of instruction, carried on under the direction, or with the criticism and approval of the head of the appropriate department.

The Master's degree is deemed the appropriate award for graduate students who have shown marked proficiency in liberal studies. In every case the program of work approved for candidates for that

degree must form a consistent plan of study and it ordinarily will be pursued in more than one department. No work which is to be counted for any other degree, except that of Doctor of Philosophy, will be approved as a constituent part of the course of study for the degree of Master of Arts.

(2) The degree of Master of Arts will also be conferred upon Bachelors of Arts and Bachelors of Letters of the College of at least three years' standing who shall have pursued while not in residence at any College or University for one full year, a course of graduate study approved by the Committee on Graduate Instruction, substantially equivalent in kind, grade, and amount to that prescribed for resident candidates for that degree, and shall have completed and passed an examination upon such course of study with high credit and presented a satisfactory thesis.

(3) The degree of Master of Science will be conferred upon Bachelors of Science of the College under the same conditions that are prescribed for the degree of Master of Arts.

The Faculty at its discretion may select one person from the candidates for the Master's degree in any year, to read and to defend his thesis in public at Commencement.

(4) Persons who have received the Bachelor's degree in any other College, whose requirements for that degree are equal to those of this College, may be recommended for the corresponding Master's degree on the same conditions that are prescribed for graduates of this College, except that the specified course of liberal, non-professional study, must be pursued in residence at this College, either during one full College year or during sessions of the Summer School in which the student must complete fifteen semester hours. In the latter case the student may finish the work for his degree in absentia under the direction of the department concerned.

(5) Resident candidates for the degrees of Master of Arts or Master of Science shall be charged the same tuition as undergraduates. They shall be charged also a fee of ten dollars for the degree. Non-resident candidates for the same degree shall be charged a fee of ten dollars for registration and of twenty-five dollars for examination and verification of thesis and for the degree.

(6) The degree of Doctor of Philosophy is at present offered in the departments of Biology, Geology, and Sociology only. Whenever other departments, singly or in groups, have sufficient teaching force and equipment to offer courses leading to this degree, announcement will be made in the catalogue. Meanwhile, graduates of the College who wish to become candidates in departments not mentioned above, are advised to seek the degree at graduate schools which are prepared to confer it.

(7) A candidate for the degree of Doctor of Philosophy must have received a Bachelor's degree from this College or from a College whose degrees are accepted as equivalent to its own, and he must satisfy the Committee on Graduate Instruction that he is properly prepared for the graduate work in the department in which he is an applicant for a degree. He must pursue graduate studies for at least three years after taking his Bachelor's degree. Two of these years must be in residence at this College. The other year may be spent in graduate study at an approved institution.

(8) Graduates of this College who have received the degree of Master of Arts or Master of Science under the rules in force since 1894, and in courses which form a part of the work announced by the department as leading to the degree of Doctor of Philosophy, may count this work as a year toward the degree.

(9) Candidates for the degree of Doctor of Philosophy are required to present themselves for examination in three related subjects, a major and two minor. The requirements in each minor subject shall not be less than all the required and elective undergraduate courses in that subject, or their equivalent. The graduate work in the major subject will consist largely of original investigation of a definite problem, the results of which are to be embodied in a thesis that shall contain some original contribution to knowledge, together with an historical and critical summary of the pertinent literature.

(10) Candidates for the degree of Doctor of Philosophy are charged the same tuition as undergraduates. They are also charged a fee of twenty-five dollars for the degree.

SPECIAL REGULATIONS

(1) Applicants for an advanced degree, whether resident or non-resident, are required to announce to the Dean of the Faculty on a blank which will be furnished on application, as early as the first of October of each year, the particular branches of study to which they wish to give attention during the year, together with all needed statistics and facts. The supervision of their work will then be entrusted to the Committee on Graduate Instruction.

(2) The subject of the thesis must be announced to the President as early as the first of February of the college year in which the applicant expects to take the degree.

(3) The thesis must be completed and put into the hands of the chairman of the Committee on Graduate Instruction as early as the first of June.

(4) Every non-resident candidate must send a written report of the progress of his work to this committee through the head of the department at least twice a year, in December and in June. Any non-resident candidate who shall fail to make such report for a period of two years shall be deemed thereby to have ceased to be a candidate for the degree for which he was enrolled.

PRIZES, HONORS, AND DEGREES AWARDED IN 1904

PRIZES

Grimes — English Composition — Seniors

First Prize — WILLIAM AIKEN KNEELAND.
Second Prize — ALBERT LYON HILL.

Lockwood — English Composition — Juniors

First Prize — EUGENE RICHARD MUSGROVE.
Second Prize — NO AWARD.

Pacific Coast Alumni Association — American Literature — Sophomores

CRAWFORD MORRISON BISHOP.

Rollins — Oratory — Juniors, Sophomores, and Freshmen

First Prize — HARRY PARCELL WAYMAN.
Second Prize — MICHAEL STEPHEN O'BRIEN.
Third Prize — JOHN HOFFMAN DUNLAP.

Smith — Extemporaneous Debate — Seniors

First Prize — HERBERT MCKENNIS.
Second Prize — HENRY ELLIOT WOODWARD.

Class of 1866 — Original Orations — Juniors and Sophomores

First Prize — MICHAEL STEPHEN O'BRIEN.
Second Prize — ARTHUR BOND MESERVEY.

Barge Gold Medal — Original Orations — Seniors

HERBERT MCKENNIS.

Class of 1846 — Latin — Juniors

First Prize — NO AWARD.
Second Prize — NO AWARD.

Atherton — Greek — Juniors

First Prize — GEORGE WILLIAM PUTNAM.
Second Prize — EDWARD CURTIS RICHARDSON.

Thayer — Mathematics — Sophomores

First Prize — JOHN WESLEY CROMWELL, JR.
Second Prize — HERBERT LESLIE BOYNTON.

Pray — Modern Languages — Seniors

French — PERCIVAL BARTLETT COBB.
German — JARED PLATT HATCH.

Grimes — General Improvement — Seniors

DAVID EMERSON FORD.

Spalding — Mechanical Drawing — Juniors, Chandler Scientific Course

First Prize — LEON BURDETT SMITH.
Second Prize — FREDERICK SAMPSON WESTON.

Moore — Geology — Seniors

NO AWARD.

Library Prize — Freshmen

WILLIAM BERTRAM TWISS.

Story — Philosophy — Seniors

HARRY WOODBURN CHASE.

HONORS

HENRY ELIJAH PARKER FELLOWSHIP

Class of 1903 — Lewis Henry Haney.

RUFUS CHOATE SCHOLARS

SENIORS — Arthur Isaac Charron, Harry Woodburn Chase, John Walter Cronin, John Storrs Fletcher, Henry Munroe Hall, Jared Platt Hatch, William Aiken Kneeland, Herbert McKennis, Jerome Meyers, John Henry Watson, Jr.

JUNIORS — Winfield Supply Barney, Edmund Ezra Day, John Hoffman Dunlap, Herford Naylor Elliott, Halsey Beach Loder, Chester Newell Moore, John Hinsdale Neely.

SOPHOMORES — Robert Irving Adriance, Francis Lane Childs, Thurlow Marshall Gordon, Arthur Bond Meservey.

FRESHMEN — Ralph Dennison Beetle, Dwight Willard Hiestand, Wilder Lewis Parkhurst, Benjamin Martin Washburn.

SPECIAL HONORS

SENIORS

FRENCH — Harry Woodburn Chase, Percival Bartlett Cobb.
GERMAN — Jared Platt Hatch.
BOTANY — David Emerson Ford.
POLITICAL SCIENCE — John Henry Watson, Jr.
PHILOSOPHY — Harry Woodburn Chase.

HONORS

SENIORS

FRENCH — Thomas Winthrop Streeter.
GERMAN — Jared Platt Hatch.
HISTORY — Thomas Winthrop Streeter.
PHILOSOPHY — Harry Woodburn Chase.

JUNIORS

FRENCH — Winfield Supply Barney.

HONORABLE MENTION

SENIORS

CHEMISTRY — Jerome Meyers.

ECONOMICS — John Walter Cronin, Herbert McKennis, John Henry Watson, Jr., Henry Elliot Woodward.

POLITICAL SCIENCE — John Storrs Fletcher, Herbert McKennis, John Henry Watson, Jr., Henry Elliot Woodward.

JUNIORS

GREEK — George William Putnam, Edward Curtis Richardson.

GRAPHICS — Frederick Sampson Weston.

PHYSICS — John Hinsdale Neely.

CHEMISTRY — Edmund Ezra Day, Chester Newell Moore.

ZOÖLOGY — Halsey Beach Loder, John Hinsdale Neely, Samuel Henry Wilkins, Jr.

BOTANY — Halsey Beach Loder, John Hinsdale Neely.

HISTORY — Shirley Beck Cunningham.

ECONOMICS — Herford Naylor Elliott.

SOPHOMORES

GREEK — Charles Alfred Pierce.

ENGLISH — Howard James Chidley, Francis Lane Childs, Thurlow Marshall Gordon, Arthur Bond Meservey, Bertrand Edwin Spencer.

FRENCH — Francis Lane Childs, Oscar Edward Gibb, Thurlow Marshall Gordon, Arthur Bond Meservey, Edward Blanchard Redman, Harold Goddard Rugg.

GERMAN — William Henry Gardiner, Jr., Oscar Edward Gibb, Thurlow Marshall Gordon, Foster Erwin Guyer.

MATHEMATICS — Herbert Leslie Boynton, Arthur Mantor Cragin.

GRAPHICS — Herbert Leslie Boynton, Augustine Haines Ayer.

DEGREES CONFERRED IN COURSE

BACHELORS OF ARTS

Bartlett, Edwin Rice
Barton, Ralph Martin
Blair, Hugh
Blanchard, Philip Staples
Bolster, Arthur Stanley
Bullock, Matthew Washington
* Charron, Arthur Isaac
* Chase, Harry Woodburn
Cobb, Percival Bartlett
Cronin, John Walter
Cummings, Edward John
Dailey, Michael Andrew
Durgin, Linwood Story
Fauteaux, Louis Dearborn
Favor, Paul Gordon
Fiske, Robert Chester
† Ford, David Emerson
Foster, Amos Parker
Frost, Gordon Bennett
Gormly, Clarence Wallace
† Hall, Henry Monroe
Hastings, Alfred Bryant
Hatch, Jared Platt
Herman, Earl Leslie
Hill, Albert Lyon
Hills, Guy Elijah
Hobbs, Don Purcell
Johnson, Harry
Kimball, Arthur William
Kirker, John Henry, Jr.
* Kneeland, William Aiken
† McKennis, Herbert
McKnight, Charles Francis
Mangurian, Armen Steven
Marquess, John Miller
Marshall, Robert Eliot
* Meyers, Jerome
Morse, Park Ashley
Moseley, Robert Brainard
Mower, Penfield
Nichols, Herbert Nathan Thomas
Nolan, John Harrison
Perry, Louis Irving
Phelps, Olney Draper
Rolfe, Hayward Percival
Russell, Walter Hall
Safford, Henry Barnard
Sanborn, Bruce Walter
Sayles, Arthur Earle
Sewall, Arthur Eugene
Sexton, Ralph Emerson
Slayton, William Harvey
Stone, Fred
Sturtevant, Mills Gove
Turner, Leigh Cilley
Walker, James Christie
† Watson, John Henry, Jr.
Webster, Leon Winfield
Whittemore, Wilfred Doloff
Willard, Ira Orlando

Babbitt, Charles Albert, '79
Clement, Foster Reid, '79
Edgerton, Charles Andrew, '79
Metcalf, Oscar Mack, '74

* Magna cum laude.

† Cum laude.

BACHELORS OF LETTERS

Brewer, Robert DuBois
Edgerly, Ferdinand Bosher
Gray, William Renssalaer
Hatch, Albert Ruyter
Holton, Harry Irving
Logan, Donald Brigham
Mahoney, William Henry
Parker, Murray Nelson
Pierce, Henry Kingsbury
Streeter, Thomas Winthrop
Terrien, Albert Bernard
Wilkinson, Emilio Valenzuela

BACHELORS OF SCIENCE

Austin, David Sands, 2d
Bowles, Amasa
Boyle, Bernard Leo
Brayton, Bascom Backus
Brennon, Elmer Garfield
Brotherhood, James Stewart
Burdett, Owen Long
Callmann, Herbert
Carr, William Howes
Clary, Henry Charles
Colesworthy, Daniel Clement
Collins, Francis Joseph
Darrow, Paul Everett
Davis, Charles Eleazar
Doonan, John Francis
Drew, Hedley Garland
Fellows, John Hibbard
* Fletcher, John Storrs
Gale, Arthur Pinkham
Hamblen, Clarence Bryant
Hamblin, Frank Samuel
Hardy, Francis Hathaway
Hinman, Burritt Havilah
Jackson, Delbert Linscott
Kimball, Donald Gilman
Lampee, Charles Irving
Laskey, Edward Philip
Leveroni, Louis Edward
Lockwood, Charles Mowry
McKeen, William Duncan
Maguire, Peter Joseph
Mathes, Maurice Everett
Maynard, James Tyler, Jr.
Norton, Daniel Capron
Nutt, Harry Garfield
Robinson, Edward Kilburn
Roby, Harrison George
Rock, Mathew, Jr.
Rollins, Dillwyn Sidney
Root, Frederick James
Shaw, William Thomas
Stowell, Franklin Henry
Vail, Leroy Benjamin
Warner, Arthur Edward
Willis, Edward Simmons
Witham, Myron Ellis
Withey, Morton Owen
Woodbridge, Charles Kingsley
Woods, Carl Fred
Woodward, Guy Eric
Woodward, Henry Elliot

Mechlin, Oscar Alexander, '03
Palmer, Harold Viall, '03

* Magna cum laude.

MASTERS OF ARTS

Brown, Julius Arthur, A.B. (1902)
Crosse, Franklin, A.B. (1903)
Haney, Lewis Henry, A.B. (1903)
Mitchell, William Hugh, A.B. (1898)
Patch, George William, A.B. (1903)
Robinson, Charles Frederick, A.B. (1890)
Ruppel, Henry Erich Kasemere, A.B. (1903)

Chaffin, William Elmer, B.S. (1886)

MASTER OF COMMERCIAL SCIENCE

Cutter, Victor Macomber, B.L.

CIVIL ENGINEERS

Comstock, Harold Dearborn, B.S.
Mair, John William
Morse, Harold Marston, B.S.
Osgood, Fred Wheeler, B.S.
Paul, Carroll, B.S.
Perham, Frank Stuart, B.S.
Reed, George Albert, B.S.
Ropes, Howard Leon, B.S.
Schilling, Albert Henry, B.S.
Smith, Sherman, B.S.
Soper, Ralph Carroll, A.B.
Worthen, Carl Burpee, B. S.

Hill, Harry Cyrus, B.S. '03

DOCTORS OF MEDICINE

Batchelder, Edward Carpenter, A.B.
Bishop, Eliot, A.B.
Bliss, George Stephen
Caverly, Fred Stickney
Cobb, Gardner Nathan, A.B.
Hanson, William Thomas
Hedin, Carl Johan
O'Connell, Andrew Edward
Severance, Robert Nathaniel
Shanley, John Dawson

HONORARY DEGREES

(Commencement)

MASTERS OF ARTS

Orlando Wales Dimick (1865) Isaac Freeman Hall
James Logan

DOCTOR OF DIVINITY

William Seaman Sayres (1876)

DOCTORS OF LAWS

Greenleaf Clark (1855) Frank Nesmith Parsons (1874)

(Laying of Corner-stone of New Dartmouth Hall)

DOCTOR OF LAWS

William Heneage Legge, Sixth Earl of Dartmouth

THE AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

CALENDAR

1904

September 22 . . . . Year begins — Thursday morning.
November 24 . . . . Thanksgiving Day — Holiday.

December 23 to Jan'y 5, 1905, Christmas recess.

1905

Jan'y 27 to Feb. 7 . . Examinations for First Year Men.
April 12 to 25 . . . . Easter Recess for First Year Men.
April 26 . . . . . Second year ends.
June 8 to 16 . . . . Examinations for First Year Men.

OFFICE HOURS

SECRETARY — Harlow S. Person — Room A, Tuck School, 11 A. M. to 12 M., Tuesday and Thursday; 2 P. M. to 2.30 P. M., Monday, Wednesday and Friday.

THE AMOS TUCK SCHOOL OF ADMINISTRATION AND FINANCE

FACULTY

WILLIAM JEWETT TUCKER, LL.D., *President.*

HARLOW STAFFORD PERSON, PH.D., SECRETARY, *and Assistant Professor of Commerce and Industry.* 15 N. Park St.
(Commercial Geography, Commerce, and Technique of Industry.)

JAMES FAIRBANKS COLBY, A.M., LL.D., *Parker Professor of Law and Political Science.* 2 Elm St.
(Constitutional and International Law.)

JUSTIN HARVEY SMITH, A.M., *Professor of Modern History.* The Hanover Inn.
(Modern History and Diplomacy.)

DAVID COLLIN WELLS, A.B., *Professor of Sociology.* 20 N. Main St.
(Sociology and Labor Problems.)

FRANK HAIGH DIXON, PH.D., *Professor of Economics.* 24 Occom Ridge.
(Transportation and Corporations.)

GEORGE RAY WICKER, PH.D., *Assistant Professor of Economics.* 20 Occom Ridge.
(Labor.)

ALLYN ABBOTT YOUNG, PH.D., *Assistant Professor of Finance* 38 N. Main St.
(Banking and Exchange.)

SIDNEY BRADSHAW FAY, PH.D., *Assistant Professor of History.* 30 N. Main St.
(English History.)

KAN-ICHI ASAKAWA, PH.D., *Lecturer on the Far East.* 20 Occom Ridge.
(Modern East Asia.)

HAROLD MARTIN BOWMAN, LL.B., PH.D., *Assistant Professor of Political Science.* 4 W. Wheelock St.
(Commercial Law.)

WILLIAM HENRY MURRAY, A.B., *Assistant in French, German, and Spanish.* 41 S. Main St.
(French, German, and Spanish Composition and Conversation.)

NON-RESIDENT INSTRUCTORS

EDWARD PARKHURST COMINS, Public Accountant, Boston, Mass.
(Accounting and Auditing.)

LEMUEL G. HODGKINS, State Insurance Department, Boston, Mass.
(Mathematics of Insurance.)

LECTURERS FOR THE YEAR 1904–1905

ALFRED LAWRENCE RIPLEY, A.M., Vice-President State National Bank, Boston, Mass. (1903–1904.)
Stock and Money Markets.

JAMES LOGAN, General Manager United States Envelope Company, Worcester, Mass. (1903–1904.)
Business Methods.

FRANK SHERWIN STREETER, A.B., of the Concord, N. H., Bar.
Corporation Law and Administration.

JOSEPH AREND DEBOER, A.M., President of the National Life Insurance Company, Montpelier, Vt.
Theory and Practice of Life Insurance.

THOMAS FRANCIS WOODLOCK, A.M., Editor Wall Street Journal, New York City.
Investment Values.

JAMES SHIRLEY EATON, A.M., Associate Editor Wall Street Journal, New York City.
Railroad Methods and Administration.

CHARLES A. HUBBARD, Treasurer United Fruit Co., Boston, Mass.
Tropical American Trade and Steamship Administration.

S. D. LELAND, S.B., Member A. S. M. E., Engineering Department, United Shoe Machinery Co., Boston, Mass.
Factory Construction and Management.

EDWIN JULIUS BARTLETT, A.M., M.D., New Hampshire Professor of Chemistry, Dartmouth College.
Economic Chemistry.

WILLIAM PATTEN, Ph.D., Professor of Zoölogy, Dartmouth College.
Economic Biology.

GORDON FERRIE HULL, Ph.D., Appleton Professor of Physics, Dartmouth College.
Economic Physics.

SPECIAL LECTURES

In addition to the courses of lectures, single lectures by specialists will be introduced from time to time.

STUDENTS

SECOND YEAR

Name	Residence	Room
French, Frank Payson, B.S.	*West Manchester, N.H.*	9 College St.
Gray, William Renssalaer, B.L.	*Aurora, Ill.*	11 College
Greenwood, George Herbert, A.B. (Univ. of Montana.)	*Anaconda, Mont.*	10 W. South St.

Name	Residence	Room
Logan, Donald Brigham, B.L.	*Worcester, Mass.*	The Hanover Inn
Root, Frederick James, B. S.	*Chicago, Ill.*	10 W. South St.
Whittemore, Wilfred Doloff, A.B.	*Whitinsville, Mass.*	10 W. South St.

FIRST YEAR

Atwood, Howard Deloz	*New Boston, N. H.*	22 Richardson
Blatner, William Davis	*Albany, N. Y.*	8 Hubbard
Brown, Roger Whittemore	*Concord, Mass.*	2 College
Day, Edmund Ezra	*Worcester, Mass.*	C. and G. House
Fleming, Harris Willard	*Natick, Mass.*	Dragon House
Gage, Daniel Nathan	*Andover, Mass.*	C. and G. House
Hill, Louis William	*Bridgeport, Conn.*	17 Richardson
Merriam, James Robert	*Conneaut, O.*	12 College
Post, John Ransom	*Jacksonville, Ill.*	X Φ House
Tuck, John	*Sharon, Mass.*	C. and G. House

THE AMOS TUCK SCHOOL

Under the terms of the Amos Tuck Endowment Fund, the gift by Mr. Edward Tuck of the Class of 1862, of the sum of three hundred thousand dollars as a memorial to his father, the Honorable Amos Tuck of the Class of 1835, and a Trustee of the College from 1857 to 1866, especial provision was made for the "establishment of additional professorships within the college proper or in graduate departments." In accordance with this provision of the endowment fund for additional instruction in undergraduate and graduate courses, and with the direct approval of the donor, the Trustees of Dartmouth College have created the Amos Tuck School of Administration and Finance.

By a second gift of one hundred thousand dollars Mr. Tuck made provision for the erection and maintenance of a building especially adapted to the uses of the School.

AIM AND ORGANIZATION OF THE SCHOOL

AIM. There is an increasing demand on the part of the business community for trained service. The Tuck School aims so far as possible to meet this demand. It recognizes clearly its limitations. It does not presume to create the genius for executive position. Neither does it attempt to teach the details of any man's business; these can be learned most quickly and effectively on the ground. It aims to enable a young man to start in business with the advantages of a trained mind and a scientific knowledge of modern business methods and conditions.

While many efficient technological schools and business colleges have offered training for men in technical productive processes and in routine office work, there is a class of men standing between these and the manager for whom no training has been provided. This class is represented by heads of departments, private secretaries, and others of whom is demanded a certain amount of initiative and on whom is placed a certain share of responsibility. The business world complains that there is an insufficiency of such men. A properly organized course of training, which aims to develop broadness of view, independence of thought, and a spirit for business activity, as well as to impart technical information, ought to produce men a large per cent of whom, beginning at the bottom, would soon show such a capacity for taking responsibility as would cause them to be rapidly advanced out of the routine positions into those of the higher class. It is not unreasonable to suppose, also, that under modern business conditions future managers and proprietors are likely to come from this class.

Many businesses have accumulated a fund of experience that may be drawn upon, shaped into scientific form, and made the basis of instruction in business practice. The largest opportunities, in the modern business world of elaborate organization and exacting requirements, ought to present themselves to those who have received the benefit of such instruction.

The assertion often made that the college unfits men for business is in part true. The unfitness has not sprung, however, so much from the lack of such preparation as is directly applicable to the work in hand, as from other causes. Rather is it true that to be really

effective in fitting men for positions demanding independence, originality, and broadness of mind, business training must be based upon the thorough education of the man through the medium of the complete college course. The sound method seems to be to educate the *man* first and the business man afterwards.

So far as the college does unfit men for business, it is due chiefly to a discipline that has not developed an ability or willingness on the part of the graduate to accustom himself quickly to the rigid discipline and the rapid pace of business life. Undergraduate associations and obligations, which for certain reasons make up so large a part of the wealth of college education, do not develop the spirit necessary in business life, and it is not desirable that it should be developed at their expense.

The Tuck School rests its claim for recognition upon the ground that these facts are taken into consideration in the provision that its work shall be graduate in character. This permits the student, after receiving the benefits of college education, to give a concentrated attention to the facts and principles of business experience, under a discipline which prepares him to sympathize with the business discipline into which he is to enter. The School proposes to lay quite as much stress upon the disciplinary training that will create a proper business attitude as upon the educational equipment of the individual.

ORGANIZATION. The course comprises two years of work. The first year, requiring for admission three years of college work, and co-ordinate with the College Senior year, is planned with a view to securing the most effective approach to the practical training of the final year. Historical, economic, sociological, and modern language courses of an advanced order are given, as well as special courses which form the basis of the specialized work of the second year. Freedom of election is granted sufficient to secure consistency and natural development of the work of the entire course. The work of this year, under certain conditions (p. 226), is accepted in the College as the final year's work for the bachelor's degree.

The second year aims to encourage independence of thought and to foster and develop natural business aptitudes. In both grade of work and method of treatment, it is quite distinct. The work is more technical and is specialized to meet individual requirements. The student is allowed greater independence and a greater opportunity for development according to natural inclinations. The discipline is

more severe; vacations are shortened, the length of a course is not nxed, special work may be demanded at any time, and in many ways requirements are made more rigid than a college can enforce. Not at all inconsistent with the high grade of scholarship required, is the thoroughly practical character of the work. The work of the resident faculty is supplemented by the lectures of specialists in their particular fields. Various phases of study are materially strengthened by conferences with business men, who give the practical touch and bring the students into contact with actual affairs. The work of this year leads to the degree Master of Commercial Science.

It is the purpose of the School to direct its work not only towards first giving the man his broad basis of business education, but more and more towards imposing upon this broad basis a training that will meet the demand for men in specific businesses. The courses of the second year include:

Courses of general value and forming the basis of specialized work.

(1) ACCOUNTING and AUDITING. This work begins with an elementary practical course in Accounting in the first year. This is followed by a more advanced and detailed course in the second year, which treats of the modern methods of accounting practised by the large manufacturing industries, investment brokers, and others. It investigates the problem of uniform municipal accounting, modern devices such as the card system, and includes a careful study of cost keeping and of the principles of auditing. In this connection should be mentioned courses in commercial mathematics and statistics.

(2) BUSINESS PROCEDURE and ADMINISTRATION. This designation covers a number of courses intended to acquaint men with the general problems of business. It includes commercial law; corporate administration, with the powers and duties of officers and directors and the discussion of the practical administration of corporate business; business diplomacy, involving the relation of employers to their employees and to each other; lectures on the relation of science to business, which aim to present the points of contact.

(3) LANGUAGE. The foreign languages are recognized as desirable and in many cases essential, especially in businesses which are developing international relationships, and courses are offered in German, French, and Spanish, with special reference to the needs of business men.

Courses of particular value in preparation for special businesses.

(1) BANKING, BROKERAGE, and INVESTMENTS. This work is in charge of a specialist of practical experience in the work covered, and the School is prepared to fit men thoroughly for the financial field. The demand for men with this training is a steady one.

(2) TRANSPORTATION, especially RAILROAD SERVICE. The changes now taking place in the organization of railroads are creating a demand for men who can fill positions of responsibility. The Accounting departments are especially concerned to secure the services of trained men. Courses in the School are offered with a view to meeting this demand.

(3) INSURANCE. Life Insurance companies have been among the first to recognize the value of trained service, and are offering attractive inducements to college men. The graduates of the School will have a clear advantage over the ordinary college graduate. It is the intention especially to develop courses that will train men for actuarial work, in which the opportunities are peculiarly attractive to men with mathematical inclinations.

(4) COMMERCE. This general title includes the courses designed for those who enter upon mercantile or manufacturing careers as well as those who engage in foreign trade. They involve a thorough study of the technique of industry, sources of materials, costs, methods of handling, and markets, as well as the details of foreign trade and the commercial policies of the various nations. For those who are to enter specific manufacturing industries, pertinent courses in science will be prescribed to be taken in the College. It is very desirable that such students consult the Secretary early in their college course in order that the scientific courses may be undertaken before the pressure of Tuck School work begins.

In the same field training may be secured for the consular service, although no great stress will be laid upon it until fitness receives recognition in the Consular Service of the United States.

JOURNALISM

Recognizing that the most valuable training for a journalistic career is a sound knowledge of History, Economics, and the activities of modern business, the School is prepared to train men for this work, a wider range of electives being permitted to such men if it seems desirable.

PREPARATION FOR TEACHING COMMERCIAL SUBJECTS

Many academies and high schools are adding to their curricula commercial courses; this is creating a demand for college graduates specially trained to teach these subjects. The Tuck School and the Department of Pedagogy in Dartmouth College co-operate to offer a course of study designed to prepare men for these positions, — the former preparing men on the side of subject matter to be taught, the latter on the side of theory and practice of teaching. The work of these men in the Tuck School does not differ materially from the work of other Tuck School students, and the Department of Pedagogy offers them precisely the same theoretical study and practical training pursued by all the members of that Department.

RELATION OF ENGINEERING TO BUSINESS

The opportunities which are presenting themselves, especially in the newer and less developed countries, for men who are trained both for Engineering and Business have created a demand on the part of the engineering profession for men of more thorough business training. The Thayer School of Civil Engineering, associated with Dartmouth College, gives opportunity for men to secure this combined training, and facilities are offered to such men as desire to pursue work in both Schools.

CONDITIONS OF ADMISSION

The School offers a two years' graduate course which is open to students under the following provisions: —

1. The School is open to those who have a bachelor's degree, provided their undergraduate work includes such preparation as is deemed adequate for entrance upon the work of the School. This preparation is in general as follows: —

a. The usual college requirements in mathematics, the sciences, literature, and philosophy.

b. (1) Modern Languages. The elementary courses in two of the three languages, German, French, and Spanish.

(2) English. Two years' work in English Composition or Argumentation.

c. (1) History. General History of Europe, representing one year's work.

(2) Economics. Elements of Economics, Industrial History, and the Elements of Commercial Geography.

(3) One course in Sociology or in Political Science or an additional course in History.

2. *a.* Students who have pursued in their undergraduate curriculum, work which is equivalent to that pursued in the first year of the School, will, after receiving their bachelor's degree, be registered in the second year.

b. Students of Dartmouth College of three years' undergraduate standing, who have fulfilled the requirements for entrance, may elect the first year courses of the school for the work of their Senior year. At the close of the year they may formally graduate from the College with the bachelor's degree for which they entered. After a year of graduate work in the Tuck School they become eligible for the degree conferred by the School.

3. STUDENTS FROM OTHER COLLEGES entering the Senior year of Dartmouth College, to avail themselves of the privilege offered in § 2 *b*, or who enter with a bachelor's degree under the provisions of § 1, must present, with their certificate of transfer or their degree, a record of standing in the subjects required for entrance.

4. SPECIAL STUDENTS. Applicants who may show fitness to pursue particular courses, may be received as special students in the second year and will be given certification for work actually accomplished, but will not be given the degree of the School. It is understood that this does not apply to students pursuing undergraduate work in Dartmouth College, except in cases where the amount of such work not yet completed is so small as not to interfere with the satisfactory pursuit of the work of the School.

5. APPLICATION. Applications for entrance to the Tuck School are to be filed with the Secretary on blanks provided for the purpose.

Applications must be approved by the President of the College and the Secretary of the Tuck School before the applicant can be admitted. In determining the fitness of students for entrance, previous scholarship in the subjects required for entrance, as indicated

by the records presented, business aptitudes and experience and other facts indicating an ability to do the work of the School, are made the basis of judgment.

ARRANGEMENT OF STUDIES

During the first year, students are required to elect an average of eighteen hours each Semester. A portion of the work consists of courses given to First Year Men independently of those offered to Seniors in Dartmouth College. These courses include Accounting and Commercial Mathematics, Industries of the United States, French and German Composition and Conversation. The remainder of the work is made up of electives chosen under the direction of the Secretary in the departments of History, Political Science, Economics and Sociology. The separation of a part of the work of the first year from the Senior work in the College is the beginning of a movement which may in the near future result in making the first year work of the School entirely independent.

The work of the second year permits of wider choice within the range of the following subjects: Modern Languages continued, Modern History, Diplomacy and Politics, Corporate Administration, Accounting and Auditing, Statistics, Business Organization and Procedure, Commercial Law, Commerce, Rail and Water Transportation, Insurance, Practical Banking, Brokerage, and Investments. The length of a course is determined by the character of the subject and not upon an arbitrary semester basis. Students must hold themselves in readiness to crowd the work of any course into as short a space of time as the convenience of the individual instructor requires. Election of work for this year must be made under the direction of the Secretary.

PRELIMINARY COURSES

The following courses in Dartmouth College, or similar courses in other colleges, are required for entrance. Courses regarded as equivalents will be accepted in place of those here given.

ECONOMICS

1 and 2. *Elementary Economics.*

Professor WICKER. First and Second Semesters, 2 hrs.

In these two courses, which together form a one-year course, the attempt is made to give the student the currently accepted scientific analysis of modern industrial society. It seeks to accomplish a threefold purpose: to teach fundamental principles in such a way that they may be applied to the duties of enlightened citizenship; to open up the general field of Economics in the way most helpful for further more detailed and extensive study in the same field; and to offer to those intending to adopt business as a profession, such general rules and principles as are contributed to business by the science of Economics.

While the course concerns itself primarily with economic theory, with the most general principles of consumption, production, exchange, and distribution, the theory itself is developed from and illustrated by a study of actual economic processes and conditions. Thus due attention is paid to the problems of money and banking, the tariff, monopoly, labor, etc., in such a general way that later intensive study of these problems may be based upon the foundations thus laid.

3. *Elements of Commercial Geography.*

Professor PERSON. First Semester, 3 hrs.

This course aims to bring out the general principles of the relation between man's environment and his industrial life, and then to apply these principles by taking up a study of the various countries as producers and sellers of goods and as markets. While all important regions are considered in an elementary way, a more detailed study is given to the older industrial countries. Among the facts considered are the following: physical conditions, geology, soils, rivers, climate; the nature and distribution of extractive and of manufacturing industries; imports and exports; industrial aptitudes; business methods; and national peculiarities that determine the particular classes of goods demanded.

4. *Economic History of the United States.*

Professor DIXON. Second Semester, 3 hrs.

Rapid sketch of the development of English industry and commerce to the eighteenth century, followed by a more careful study of

the Industrial Revolution. With this as a background, the industrial development of the United States is considered, the relation of economic to social and political factors being constantly noted. The following are some of the topics considered: The land policy of the government, the movement of population, and the development of agricultural resources both North and South, including the economic effects of slavery; the origin and development of the extractive and manufacturing industries; transportation development, including canals, turnpikes, and railways; the evolution of the modern industrial combination.

HISTORY

1. *Mediæval and Modern European History.*

Professors FOSTER and FAY. First Semester, 3 hrs.

Courses numbered 1 and 2 are treated as a continuous year's course in European History (exclusive of English) from the Teutonic Migrations to the French Revolution (375–1789). Lectures; recitations on lectures, text-books, and additional reading; map and written work; conferences.

2. *Mediæval and Modern History (continued).*

Professors FOSTER and FAY. Second Semester, 3 hrs.

Methods of instruction as in Course 1.

In addition to the two courses given above, one other course in History may be chosen to complete the requirement. This should be selected from the following courses.

3. *History of England to the Sixteenth Century.*

Dr. SHIPMAN. First Semester, 3 hrs.

This course consists primarily of the political history of the English nation, with such reference as is necessary to constitutional, economic, and intellectual development. Lectures, recitations, and reports.

4. *History of England and the British Empire from the Sixteenth Century.*

Dr. SHIPMAN. Second Semester, 3 hrs.

This is a continuation of Course 3, and includes, in addition to the history of Great Britain, the development of the British Empire

and the history of its colonies and dependencies. Lectures, recitations, and reports.

5. *American Colonial History to 1783.*

Professor FOSTER. First Semester, 3 hrs.

This course is intended to trace the beginnings of the American nation rather than the details of the history of the individual colonies. Emphasis is therefore laid on the European inheritance brought to this country by the colonists, their development of American institutions in the new environment, the expansion of population, the struggle between French and English for North America, the underlying causes of the Revolution, the growth of independence and union. Lectures, recitations, and reports.

9. *The Historical Development of Modern Europe, 1789–1900.*

Professor FAY. First Semester, 3 hrs.

The first part of this course aims to explain the political, social, and intellectual conditions which caused the French Revolution, and to give a brief narrative of the French Revolution itself and of the rise and fall of Napoleon. The second part traces the formation of the present states of Continental Europe, and closes with some account of the actual government of each. The course is thus a continuation of History 2 and an introduction to an understanding of the political conditions and questions of the Europe of to-day. Lectures, quizzes, on reading, recitation on text-book, and thesis.

POLITICAL SCIENCE

1. *American Political Institutions.*

Professor BOWMAN. First Semester, 3 hrs.

A concise survey of the origin, development, and practical working of American political institutions, preceded by a brief outline of the constitutions of antiquity and the English Constitution. This course includes an historical review of the formation of the Federal Constitution, and a study of that Constitution as a body of living principles; the working relations of the Federal and State governments; the distinction between American sovereignty and American government, and a brief examination of different forms of local and municipal government. The course affords a broad working basis for all other courses in political science and law.

SOCIOLOGY

1. *Ethnology.*

Professor WELLS. First Semester, 3 hrs.

This is a study of man as the physical unit of society. It considers man's place in nature and the races and varieties of mankind. The method of treatment is both historical and descriptive. Lectures and recitations.

2. *Biological Sociology (Vital Phenomena).*

Professor WELLS. Second Semester, 3 hrs.

This course treats of man's adjustment to his natural environment and of the way in which it determines his mode of life and his institutions, with particular reference to climatic conditions and problems of tropical colonization. It is the Biology of population, involving a study of birth rates, death rates, and kindred phenomena by the Statistical method.

MODERN LANGUAGE

English. Two years' work in English is required for entrance. The work of the first year is in English Composition and Rhetoric. The work of the second year may be pursued in English Composition and Literary Analysis or in Argumentation and Debate at the option of the student.

Foreign Language. The elementary work in two of the three languages, German, French, and Spanish, is required for entrance to the School. This means in a general way two years' work in French and German and one year in Spanish. The work covered is pronunciation, grammar, composition, sight-reading, and translation.

COURSES OF INSTRUCTION

FIRST YEAR

FIRST SEMESTER

The courses here presented are arranged to meet the greater present demand of students preparing for some phase of business in its generally understood meaning. Modifications of these requirements will be made to meet special needs. Those preparing for Journalism, for example, will be permitted wider elections in English. Those preparing for manufacturing businesses will be given opportunity to secure the necessary scientific training. Those who are preparing for businesses with international connections are expected to take more language than the minimum requirement.

The total amount of work carried each Semester should be equivalent to about eighteen hours per week of College work. The following courses are required unless special permission is granted to substitute equivalent courses: Industries of the United States, either Money and Banking or Corporations, Accounting, and one of the three languages, German, French, and Spanish. The courses in Industries of the United States, Accounting, German, French, and Spanish are given independently to First Year Men, and are not open to Seniors in Dartmouth College. From the remaining courses here presented, the student must complete his schedule under the direction of the Secretary.

ECONOMICS

5. *History and Theory of Money, Credit, and Banking.*

Professor YOUNG. First Semester, 3 hrs.

An opening sketch of the primitive conditions of exchange, followed by a study of the nature and functions of money, relation of a standard of value to prices, evolution of metallic currency, characteristics of good currency, principles of circulation, introduction, nature, and forms of government paper money.

The origin and development of national, state, private, and savings banks will then be considered; credit, its place in modern finance; the nature, forms, operation, and regulation of bank currency; bank-

ing features of modern trust companies. A comparison will be made with the banking systems of other leading countries. A review of American monetary legislation.

Lectures, collateral reading, discussions.

7. *Corporations.*

Professor DIXON. First Semester, 3 hrs.

(*a*) History of business corporations with a careful analysis of recent forms of industrial combination. (*b*) Elements of corporation law, sufficient to make clear the economic position and limitations of the modern corporation. (*c*) Corporation finance, with special reference to the promotion, financiering, and management of large aggregations of capital. (*d*) Relation of corporations to the State, including the development of statutory law, and the policy of the various States toward corporate organization, with particular reference to taxation.

9. *Resources and Industries of the United States.*

Professor PERSON. First Semester, 3 hrs.

(*a*) A detailed study of the fundamental conditions of the industrial development of the United States, such as geographical, geological, and climatic factors; the extent and distribution of resources; industrial traits; labor conditions; forms of industrial organization.

(*b*) A general survey of the development and present conditions of the more important extractive industries — agriculture, horticulture, forest industries, fishery industry, and mining.

(*c*) A minute investigation of the development and present condition of typical manufacturing industries, each being considered as to the securing of raw materials, technical processes and costs of manufacture, form of organization, methods of management, the times, places, and methods of the sale of finished products, and as to its general conditions and prospects.

Emphasis is given throughout this course to facts of practical value, and practical use is made of the material in the Commercial Museum.

11. *Commercial History and Policy.*

Professor DIXON. First Semester, 3 hrs.

Historical study of the tariff policy of the United States, with comparative study of the policy of related countries; commercial

treaties, including the policy of reciprocity; navigation laws, bounties, subsidies, preferential tariffs, and the problem of our merchant marine; the commercial relation of the United States to its recently acquired possessions.

13. *The Development of Economic Thought.*

Professor WICKER. First Semester, 3 hrs.

A survey of the history of economic theory as related to the history of economic development. It is the aim of the course to enforce and amplify the student's grasp of economic principles by a study of the development of thought in the economic field. Lectures, recitations, and reports.

ACCOUNTING AND MATHEMATICS

A. *Theory and Practice of Accounts.*

Mr. COMINS. First Semester, 2 hrs.

(*a*) General Books, viz.: Cash Book, Journals, Ledgers, and subsidiary books and forms.

(*b*) Practice in Accounting. The accounts of a manufacturing business are conducted in simple form and brought to the point where individual ownership of the business gives way to the corporate form.

MODERN HISTORY

2. *Political History of the United States* (1783–1877).

Professor J. H. SMITH. First Semester, 3 hrs.

The Political History of the United States from the close of the Revolutionary War to the close of the Reconstruction period (1783 to 1877). The core of the work is the mastery of a brief text-book, regarded as a full syllabus, and supplemented with formal lectures, required readings, and the investigation of original sources. The chief stress is laid upon the broad movements of the period, and the vital processes by which the States of the Revolutionary Period have become the American Nation of recent times.

POLITICAL SCIENCE

3. *American Constitutional Law.*

Professor COLBY. First Semester, 2 hrs.

This course is designed to give students a knowledge of the general principles of the Constitutional Law of the United States, both

federal and statal. Particular attention is given to the origin and development of the written constitution in America, to the formation of the early State constitutions, and the various sources of the Federal Constitution and to its text. Recitations and lectures. (Cooley's *Principles of Constitutional Law.*) Four hours a week for the first nine weeks.

SOCIOLOGY

3. *Anthropological Sociology* (*Social Phenomena*).

Professor WELLS. First Semester, 3 hrs.

Its subject is the social life of to-day, particularly in America. It investigates the statistics of social conditions and social groups. This involves a study of Social Classes, Crime, Pauperism, and Social Reform.

MODERN LANGUAGE

Each student is required to elect work in one of the three languages, German, French, and Spanish. Special emphasis is laid upon advanced composition and conversation. This work is in the hands of a special Tuck School instructor, who keeps in mind the special needs of business men. Those whose equipment in one or more of these languages is considered adequate, will be permitted to substitute electives therefor.

French

A. Composition and Conversation.

Mr. MURRAY. First Semester, 2 hrs.

Practice in speaking and writing French, with the aim of familiarizing the student with spoken French and training him in the use of the common idioms. This course will be conducted as an introduction to the more practical work of the second Semester.

German

A. Composition.

Mr. MURRAY. First Semester, 2 hrs.

This course is intended to widen the student's commercial vocabulary by the reading of selections dealing with German business customs and institutions. Exercises in composition will be given to familiarize the student with German grammar and idioms.

Spanish

A. Composition.

Mr. MURRAY. First Semester, 2 hrs.

Practice in writing Spanish, designed to acquaint the student with the grammatical structure of the language, and to familiarize him with the common idioms.

FIRST YEAR

SECOND SEMESTER

The total amount of work carried should be equivalent to about eighteen hours of College work. The following courses are required unless special permission is granted to substitute equivalent courses: Statistics, either Transportation or Public Finance, Commercial Mathematics, and one of the three languages, German, French, and Spanish. The courses in Commercial Mathematics, German, French, and Spanish are given independently to First Year Men and are not open to Seniors in Dartmouth College. From the remaining courses the student must complete his schedule under the direction of the Secretary.

ECONOMICS

6. *Public Finance.*

Professor YOUNG. Second Semester, 3 hrs.

A course devoted to a general study of the history, principles, and practice of public finance, and arranged substantially as follows:

(*a*) Public Revenues, their classification, and the nature and characteristics of the different kinds. The subject of Taxation will receive special attention, both in a consideration of its nature, principles, sources, limits, incidence, and influence; and in the study of its particular forms, such as the general property tax, income, inheritance, and business taxes.

(*b*) Public Expenditures, their nature, classification, and relation to public welfare.

(*c*) The Budget, its preparation, form, and composition; the collection of revenues; custody of funds and organization of the Treasury Department; administration of expenditure.

(*d*) Public Credit, (1) when employed; (2) how employed; contraction of public debts, their classification, flotation, conversion, funding, and redemption.

The work will be conducted much after the seminar plan, with frequent reports on the financial history, legislation, and practices of leading States, with especial reference to the conditions peculiar to the United States. (Adams' *Public Finance* as a text; liberal reference to Seligman and others.)

8. *Transportation.*

Professor DIXON. Second Semester, 3 hrs.

Railways. (*a*) The railway problem of the United States, including theories of rates, combination and pooling, consolidation, community of ownership, and government ownership or control, involving a careful consideration of the work of the Interstate Commerce Commission and State Commissions, and of the attitude of the States toward railways as expressed in legislation; (*b*) A comparative study of the railway systems of other countries, especially England, Germany, France, Canada, and the Australian Commonwealth; (*c*) Railway geography of the world with a consideration of the economic significance of the great railway systems; (*d*) Electric railways and their competitive relation to steam transportation.

Water Transportation. Lake, river, and canal transportation of the United States, and their economic importance, involving a comparison with other countries. Ocean transportation, including a study of ship canals and of the world's leading trade routes.

Brief treatment will be given to street transportation, highways, telegraphs, telephones, and the important international cable lines.

10. *Labor.*

Professor WICKER. Second Semester, 3 hrs.

A preliminary review of the economic theory of labor and wages, followed by a concrete, practical study of the present status of labor in the chief industrial nations. Among the more important topics to be treated are forms of remuneration, labor unions, strikes and boycotts, arbitration and conciliation, labor law in the United States and England. Lectures and recitations.

12. *Studies in Statistics.*

Professor YOUNG. Second Semester, 2 hrs.

Statistical methods and results will be studied through the investigation of various phases of economic development. Industrial statistics will receive special attention. Some attention will be given to the sources and reliability of statistical data and to the methods of distinguishing true and false inferences.

14. *Present Day Economic Theory.*

Professor WICKER. Second Semester, 3 hrs.

An advanced course in Economics, in which mooted points of theory will be critically studied in the works of such economists as Marshall, Böhm-Bawerk, John B. Clark, Patten, and others. This course is designed as a natural completion of the historical study in the first Semester, as outlined in Course 13. Reports and group conferences.

ACCOUNTING AND MATHEMATICS

B. Commercial Mathematics.

Second Semester, 2 hrs.

The aim in this course is to collect and correlate those principles in the various mathematical subjects which may be needed by the administrator or the financier, and to give the student proficiency in their use. The subjects treated are as follows: Metric System, reduction from the common system to the metric system and the reverse; Money, conversion of United States money into foreign money and *vice versa;* Percentage, determination of either base, rate per cent or percentage when the other two are known; application made in problems relative to Profit and Loss, Trade Discounts, and Brokerage, Interest (simple and compound), and Commercial Paper; method of computing Foreign Exchange and Stock and Bond values; Taxes and Duties; solution of problems in Partnership and Averaging of Accounts; methods of quick computation; the use of Calculating Machines.

MODERN HISTORY

4. *The Modern East Asia.*

Dr. ASAKAWA. Second Semester, 3 hrs.

A study of the diplomatic, commercial, and moral relations of the East Asiatic peoples with the European and American nations, as

well as of the existing conditions of those peoples. The subject naturally divides itself into three stages: the intercourse between China and Europe during the Middle Ages; the contact of China and Japan with the colonizing nations of Europe from the sixteenth to the eighteenth century; and the new era of international activity opened by the Chinese War of 1841–42. Of these three stages, the first two will be briefly treated, and, of the third, the greater portion of the time will be devoted to the latest developments. Explanatory views of the more important topics will be given in lectures, and some of the numerous subsidiary topics will be covered by written reports.

POLITICAL SCIENCE

2. *Comparative Constitutional Law.*

Professor BOWMAN. Second Semester, 3 hrs.

A study of the State, its nature and origin, form, functions, and ends, with a critical comparison of the present constitutions and the actual working of the governments of England, France, Germany, and the United States.

7. *Administrative Law of the United States and the Principal European States.*

Professor BOWMAN. First Semester, 3 hrs.

The purpose of this course is to present the general principles of administration in the United States, England, France, and Germany. Among the subjects studied are: The sphere of administration; separation of powers; administrative organization; executive powers; departments of state; subordinate and local administration; powers and duties of officers; law of appointment, election, removal, and direction; rights of individuals against the administration; administration in action; control of adminstration by legislatures, administrative superiors, and the courts; methods of Anglo-Saxon judicial control, including a discussion of the writ of *mandamus* and other extraordinary legal remedies; administrative courts of France and Germany. (Goodnow's *Comparative Administrative Law*, and lectures.)

8. *International Law.*

Professor COLBY. Second Semester, 2 hrs.

This course is historical and explanatory of present international relations. It treats of the origin and development of the rules that generally govern the intercourse of modern civilized states, and their recent modifications by treaty. Recitations and lectures. (Lawrence's *International Law.*) Four hours a week for the last nine weeks.

SOCIOLOGY

4. *Psychological Sociology* (*Social Forces*).

Professor WELLS. Second Semester, 3 hrs.

This approaches social facts from the mental side, considering them as expression of the human mind or products of human effort. It attempts to explain human society and human institutions from within, by the method of scientific interpretation.

MODERN LANGUAGE

Foreign Languages. The work is a continuation of that of the first Semester, one of the three languages, German, French, and Spanish, being required. Following are the courses, presented as in the first Semester by a special Tuck School instructor, who shapes them to the needs of the students.

French.

B. Composition and Conversation (*continued*).

Mr. MURRAY. Second Semester, 2 hrs.

The methods of the first Semester are continued, and in addition special attention is given to numerals, dates, French money, and weights and measures. Letter-writing in its simpler forms as an introduction to the work of the second year is studied. This will give attention to the most approved style of address and signature, and to concise and accurate form, and will treat principally of business letters, such as orders, receipts, and the like.

German.

B. Composition (*continued*).

Mr. MURRAY. Second Semester, 2 hrs.

This is a continuation of Course A, and is devoted entirely to composition work. It includes the simpler forms of business correspondence; letters, receipts, applications for positions, etc.

Spanish.

B. Composition (*continued*).

Mr. MURRAY. Second Semester, 2 hrs.

Continuation of the work of the first Semester, familiarizing the student with commercial terms and the forms of business correspondence.

SECOND YEAR

The courses of the second year given below are not arranged upon an arbitrary semester basis. The length of each course is determined by the character of the subject. Students must hold themselves in readiness to crowd the work of any course into as short a space of time as the convenience of the individual instructor requires. Election of work for this year must be made under the direction of the Secretary.

ACCOUNTING AND AUDITING

C. *Theory and Practice of Accounts and Audit.*

(*a*) Practice in Accounting. Closing the accounts of the individual business man as conducted in the First Year course, and opening the accounts of the corporation. The corporation accounts will be conducted according to the most modern business methods, with a view to furnishing accurate detailed information as to cost of product and as to the condition of the business from day to day.

(*b*) Accounts of Manufacturing Corporations and Investment Bankers, opened, conducted, and closed. These two forms of accounts are taken as types, and from them are illustrated the general principles of accounting as applied to Individuals, Partnerships, Trustees, Corporations, Municipalities, etc.

(*c*) Trial Balance, Cost, Depreciation, Profit and Loss, Good-will, Balance sheet.

(*d*) Methods of procedure in the examination of accounts for various purposes: (1) extending credit, (2) ascertaining causes of insolvency, (3) ascertaining earnings, (4) special purposes.

(*e*) Various systems of accounting compared and analyzed.

(*f*) Auditing and arrangement of accounts with a view of facilitating an audit. Mr. COMINS.

D. *Cost Systems.*

A careful study of systems of cost determination as introduced into various industries. Mr. COMINS.

This entire course, C and D, is a practical study as distinct from a lecture course.

PRIVATE FINANCE

A. *Practical Banking.* Examination. of the mechanism and methods of different banking institutions, organization, note issues, circulation, reserves, investment of deposits, loans and discounts, conditions affecting interest rates, bills of exchange, money movements and fluctuation of exchange rates, bank correspondents and branch-bank system, emergency banking; origin, utility, and administration of clearing-houses; duties of different bank officials.

Attention is given to the main features of the federal bank law and to those of typical States; also, a comparison of American banking methods with those of other countries. Professor YOUNG.

B. *Domestic and Foreign Exchange.* An advanced course designed to equip men for this particular phase of banking. It considers such questions as exchange notes, with causes for their fluctuations; international payments and the determination of foreign exchange; and trains the student in practical methods. Professor YOUNG.

C. *Money Markets and Speculation.*

(*a*) Study of the money market, including a sketch of such centres as New York and London; the functions of bill brokers and other financial agencies; relation of the money market to government finance; monetary crises and panics and the financial side of the stock and produce market.

(*b*) Careful study of the stock and produce exchanges, their organization and methods, including a comparison with the exchange methods of England, France, and Germany. Professor YOUNG.

D. *Corporation Finance and Investments.*

(*a*) Corporation securities, promotion and flotation of capitalistic organizations, relations of stock brokers and directors, consolidation, bankruptcy, receivership, reorganization, analysis of corporation reports.

(*b*) General principles and classes of investment; analysis of corporation reports from the standpoint of the investor; investments of typical institutions such as trust companies, savings banks, and educational institutions; legal aspects, including liability of promoters and officers and the burdens of taxation. Professor DIXON.

E. *Investment Values.* A series of lectures intended to discover and explain the scientific principles upon which are based values of the various forms of investments, involving a consideration of the following points: the theory of investments; what constitutes an investment; "women's investments"; why industrial securities are seldom investments; how value of railroad securities is ascertained; difficulty in ascertaining value of industrial securities.

Mr. WOODLOCK.

COMMERCE AND INDUSTRY

A. *Foreign Commerce of the United States.*

(*a*) Detailed study of the methods and forms employed by American merchants in their dealings abroad, including cable codes, orders, invoices, bills of lading, customs formalities, marine insurance, and ship's papers.

(*b*) The customs tariffs of the more important commercial nations, including commercial and reciprocity treaties, bounties, tonnage duties, port regulations, laws governing coastwise traffic.

(*c*) Detailed study of American Commerce with the aid of trade papers, consular reports, and the government publications of various kinds, with a view especially to the acquirement of new markets by adaptation of products to their needs and to the retention and extension of markets already open. Professor PERSON.

B. *Commercial Geography of Undeveloped Countries.* An exhaustive study of the physical and social conditions of industry in regions like the Colonies of the United States, Cuba, Central America, South America, South Africa, Australia, and China. This course aims to cover the field from two points of view, studying the existing and prospective conditions of these regions, first, as to markets for the productions of the United States, and, second, as to investments and the establishment of industrial enterprises in these regions. Professor PERSON.

C. *Tropical American Trade.* A series of lectures on the relation of the United States to tropical regions. Consideration is given to the resources and the business conditions of these regions, to the actual way in which the trade is carried on, and to the management of steamship lines engaged in this trade. Mr. HUBBARD.

D. *Mechanism of Trade.* In this course a special study is made of those institutions having for their function the regulation of the production and distribution of the products of the industries with which they are associated. It comprises a detailed study of the relations between important industries and boards of trade, exchanges, markets, wholesale and retail associations, trade publications, transportation agencies, labor organizations, and so on.

Professor PERSON.

E. *Relation of Science to Business.* A series of lectures intended to show the student the points of contact between business and science.

(*a*) Chemistry. The place of the chemist in the world's work. The utilization of by-products, the economic value of exact knowledge.

Professor BARTLETT.

(*b*) Biology. The growing commercial importance of the science.

Professor PATTEN.

(*c*) Physics. Relation of the Bureau of Standards to Commerce, the standardizing of measures of length and mass, of electrical quantities and candle powers. Application of electricity to industries; electric power transmission, electric traction, efficiency factors.

Professor HULL.

F. *Relation of the Employer to Labor.* This course deals with the present relations of Capital and Labor in the United States. It investigates the statistics, organization, and methods of Trade Unions, their temper and tendencies, together with Strikes and Lockouts. It considers the social conditions which are fundamental to the economic relations of employers and wage receivers. This course is based on the belief that an understanding of the workingman's point of view is essential to the successful conduct of business.

Professor WELLS.

TRANSPORTATION

A. *Railroad Service.*

(*a*) Organization. The organization of a railroad, including its charter rights, powers and duties of stockholders; internal organization for business purposes with the various plans on different systems; officers and employees and their duties; relations of employees to their employment, including examinations for employment, rules of discipline, relief departments and pensions.

(*b*) Operation. Movement of trains, cars and power, problems of loading, car accounting and interchange, including the discussion of mileage vs. *per diem* payment, duties of employees engaged in operation.

(*c*) Traffic. Rules and regulations governing freight traffic, discussion of passenger, mail, and express service, methods of traffic development; methods of rate-making and various kinds of rates; bills of lading and other forms used in traffic handling; fast freight lines, traffic associations, pools, and other forms of railroad coöperation.

(*d*) Mechanics. Study of the elements of railroad construction and maintenance and their costs. Details of locomotives and cars, their use, construction, and repair. Modern mechanical and safety devices, including brakes, couplers, signalling systems, and the like. Purchasing Department, with consideration of properties of materials and railroad supplies. This section of the work will be conducted in part under Course G (2d part) in the Thayer School of Civil Engineering under the title "Economics of Location, Construction, and Maintenance of Railways."

(*e*) Finance and Statistics. (1) *Accounting and Auditing.* Organization of this department with a study of its duties and the methods employed. (2) *Statistics.* Careful study of the statistical results of railroad operation and management, including the significance of the various statistical units and averages used. Reports made by railroads

to the Interstate and State Commissions. (3) *Finance.* Interpretation of railroad reports, including income accounts and balance sheets and determination of the different policies pursued as to maintenance and betterments. The more general discussion of capitalization, reorganization, and the like will be found under Private Finance D.

(*f*) Legal. The rights of railroads under common and statute law, their obligations to employees and shippers, taxation, relation to Interstate and State Commissions. Professor DIXON.

B. *Railroad Operation and Administration. — From the accountant's standpoint.*

(*a*) Transportation on a Railroad. The moving of trains, single track, double track. How they are made up and broken. The hostling and care of engines at terminals. The yard work, various plans of switching. The stations and warehouses. How freight is handled, negotiation of its receipt and delivery.

(*b*) Maintenance. The forecast and recast of the work. The annual and monthly budget. How maintenance differs from transportation. Description and classification of maintenance. How the work of maintaining track and structures is carried on. How the cars and locomotives are kept up to standard. The various reports and analyses that keep the supervising officer in touch with the situation.

(*c*) Revenue. How assessed and collected. The safeguards thrown around its collection and remittance. The Travelling Auditor, his duties and his methods. The work of the freight and ticket accountants. The different systems of freight accounting. The clearing house, its advantages and limitations.

(*d*) Disbursements. What they are for. How they are made. The authorization of disbursements and the accounting and auditing. The classification of disbursements. The principles of disbursement statistics.

(*e*) Cars and Power. The methods of car distribution and balancing power. How daily disposition of car supply and power is watched. The interchange and accounting for cars. Mileage vs. *per diem.* Stores, how bought and disbursed on a railroad, how watched and accounted for.

(*f*) Organization of a small railroad — of a large railroad. The divisional *vs.* the departmental plan. The significance of subordination. The dual capacity and how harmonized with the general plan. Mr. EATON.

INSURANCE

A. *Economics of Insurance.* An introductory study of the economic theory of risk, followed by an examination of the nature and theory of insurance, a review of the rise and development of its different forms and systems, with a consideration of such included topics as insurable interests, premiums, policies, losses, averages, subrogation, etc.; also, the economic effects of insurance, public supervision of companies, and insurance law. Professor YOUNG.

B. *Mathematics of Insurance.* This course enters in detail into the mathematical side of insurance, including such topics as mortality tables, annuities, endowments, reserve, surplus, premiums, dividends, and the like. Mr. HODGKINS.

C. A series of lectures designed to illustrate the practical workings of insurance as conducted to-day in all its important forms, with special reference to the United States. After a brief discussion of the economic conception of insurance, its history, development, problems, and social service, attention will be given to fire and casualty insurance, to employer's liability and corporate suretyship, but special study will be devoted to its most highly developed form in life insurance. This will involve consideration of fundamental assumptions, rate-making, policy construction, varied benefits, field management, advertisements, compensation, solicitation, medical selection, practical accounting, investments, office-work, corporate management, state supervision, insurance law, insurance by the State. A critical estimate will be presented of the leading theories and different practices related to these questions, the object being to give a just estimate of the business, and a comprehensive knowledge of its present-day workings. Mr. DEBOER.

BUSINESS PROCEDURE AND ADMINISTRATION

A. *Corporations and Corporate Administration.* Origin, history, creation, and dissolution of corporations. What is meant by franchise. Municipal and quasi-public corporations. Stocks and Bonds. Corporations and partnerships distinguished; relation of stockholders to the corporation; power of majority ; rights and remedies of minority stockholders. Officers and directors, their powers and duties; constitution and by-laws. Powers of corporations and their limits. Trusts. Methods of formation. State and federal control. Practical administration of corporate business. Mr. STREETER.

B. *Bank Administration* and *Railroad and Steamship Administration.* See under Private Finance A, Transportation B, and Commerce and Industry C.

C. *Business Management.* This course comprises a detailed study of management and routine in the small retail store, the department store, the wholesale business, and the manufacturing plant. It works out a typical organization and system for each of these forms of industry, bringing out with special emphasis the relations between the various departments — the executive, accounting, purchasing, manufacturing, sales, credit, advertising, and other departments.

Professor PERSON.

D. *Plant Construction.* This series of lectures gives attention to the planning and construction of manufacturing plants with special reference to the adaptation of the plant to the particular business. Features of organization rather than of engineering are considered.

Mr. LELAND.

LAW

A. *Commercial Law.* An outline of the main principles of the law of contracts; agency; bailments, including the obligations of postmasters, innkeepers, common carriers, and telegraph companies; bankruptcy and insolvency; insurance; negotiable instruments; partnerships, joint-stock companies and corporations; the acquisition and transfer of property, and sales of personal property.

Professor BOWMAN.

DIPLOMACY

Diplomacy. The subject of this course is the business of international negotiation, and while necessarily parallel to international law, it deals with that subject only as it must, and in an incidental way. Lectures are given on the origin and evolution of modern diplomacy; the qualifications and methods of typical modern diplomats; the course of certain specially noteworthy negotiations, from the Congress of Vienna to the Venezuela Case, including the evolution and history of the Monroe Doctrine; the organization of American and foreign diplomatic and consular services; principles of diplomatic procedure; and the duties laid down by the United States Government for its agents in foreign countries. This course is intended to be practical rather than merely theoretical, and many workable ideas bearing not only on diplomatic but on business negotiation are discovered. Professor SMITH.

HISTORY

A. *Modern History.* This course consists of lectures on Canada, Mexico, Australia, and the principal countries of South America, Asia, and Africa. The main object is to convey a knowledge of the history, character, and present circumstances of the people of these countries, and prepare students to deal intelligently with them. Under the direction of the instructor the students will do constructive work in the political history of Europe since 1878, each student covering a given period and profiting from the work of other students.

Professor SMITH.

MODERN LANGUAGE

Foreign Language. Students are required to pursue throughout the year one foreign language. The work is in the hands of a special Tuck School instructor, who will arrange the courses to meet specific needs. Those whose equipment in the language is considered adequate are permitted to substitute an elective therefor.

French C and D. *Composition and Conversation*, advanced. A continuation of the work of the first year in more advanced form. Special attention is given to all forms of business correspondence in French, and discussions in French are held upon the current details of French commercial and industrial affairs. Mr. MURRAY.

German C. *Advanced Composition.* A continuation of the work of the first year, including more advanced forms of business correspondence, bills of lading, bills of exchange, checks, promissory notes, etc. Mr. MURRAY.

German D. *Advanced Composition and Conversation.* Trade reports and newspaper articles will be discussed. Matters of general commercial interest are used to provide material for composition and conversation. Mr. MURRAY.

Spanish C and D. *Advanced Composition.* Advanced composition, giving special attention to the acquisition of a commercial vocabulary, to business correspondence, and to the writing of advertisements and catalogues. Mr. MURRAY.

THESIS CONFERENCE

An important part of the work of the year is the preparation of a Thesis upon a subject along the line of the student's special work. A conference of students and instructors will be held each week during the year for discussion and suggestion.

COURSES FOR STUDENTS PREPARING TO TEACH COMMERCIAL SUBJECTS

The work required of students who have entered the Tuck School for the purpose of preparing to fill positions as teachers of commercial subjects, does not differ materially from the work required of other Tuck School students. A greater freedom of election, under the direction of the Secretary, is permitted; and in addition to those courses required of all Tuck School students, the following courses, offered in coöperation with the Department of Pedagogy in Dartmouth College, are required.

FIRST YEAR

EDUCATION

1. *History of Education.*

Mr. LEWIS. First Semester, 3 hrs.

2. *Introduction to Educational Theory.*

Mr. LEWIS. Second Semester, 3 hrs.

SECOND YEAR

PEDAGOGY

1. *Lectures on Pedagogy.*

Mr. LEWIS. Two exercises a week throughout the year.

2. *Seminar in Education.*

Mr. LEWIS. One two-hour exercise a week throughout the year.

TEACHERS' SEMINAR

A seminar conducted by the members of the Faculty of the Tuck School, in which the various subjects studied in the Tuck School are reviewed. A critical study is made of standard text-books, and of the selection and presentation of the most important topics.

PRACTICE TEACHING

Practice teaching under constant supervision and criticism throughout the entire year.

For a detailed announcement of the above courses in Education and Pedagogy, and of the Practice Teaching, see pages 149–152.

CALENDAR

The calendar of the first year is the same as that of Dartmouth College. The year is divided into Semesters, with the usual Thanksgiving, Christmas, and Easter recesses, and closes the third week in June.

The second year is entirely independent of the College. One day of vacation is granted at Thanksgiving, and two weeks at Christmas. The Easter recess is omitted, and the year closes the last week in April. This plan has been adopted in order that the work of the concluding year may be concentrated, and that the student may take advantage of the opportunities of the early spring for entering business.

STANDING

In order to enter upon the work of the Second Year, students are required to maintain during the First Year a general average standing of not less than 75 per cent.

Students in the First Year whose marks at the middle of either Semester do not meet the standards required, will be warned of their deficiencies. If these students have not reached the required standard at the end of the Semester, they may be dropped from the School.

ABSENCE

The First Year Men are subject to the same regulations concerning absences as are the Seniors in the College, and all excuses for absence must pass through the hands of the Dean of the College. In addition the Tuck School Faculty reserves the right to pass judgment. Extensive absence, whether excused or not, may be regarded as indicating a lack of interest in the work, or may in the judgment of the Faculty render it impossible for the student to continue the course with profit. An excessive number of absences will render the student liable to be dropped from the School at the end of the Semester.

No absences are allowed in the Second Year except after special permission granted in each case by the Secretary.

No class exercises may be given up for either First or Second Year Men except on official holidays. Work interfered with for other reasons must be given at another time, to be arranged by the instructor after consultation with the Secretary.

EXAMINATIONS

Examinations for First Year Men are held at the close of each College Semester, the examination periods being the same as those of the College. The examinations for Second Year Men are held at the conclusion of each course, and additional examinations are given from time to time at the convenience of the departments concerned.

DEGREE

The degree Master of Commercial Science will be conferred upon those who have completed and passed examinations upon the course of study of the School with credit and have presented and defended a satisfactory thesis.

THESIS

The subject of the thesis must be announced to the Secretary as early as the 15th of November of the year in which the student expects to take the degree.

The thesis must be completed and put in the hands of the Secretary as early as the 1st of April of that year.

The thesis, after acceptance by the instructor concerned, must be read and defended before a committee of the Faculty.

Every candidate for the degree shall deposit a typewritten copy of his thesis in the Library of the School before being permitted to take his final oral examination for the degree.

FINAL EXAMINATIONS

The examinations are both oral and written, and cover the work of the final year. The oral examinations are conducted in the presence of a committee of the Faculty by the instructor in whose department the principal part of the work of the student falls.

FEE

A fee of ten dollars is charged for the degree. This and all other College fees must in all cases be paid into the College Treasury before the candidate is permitted to take his final oral examination.

FACILITIES

A second gift from Mr. Tuck provided the funds for the construction and maintenance of a building specially adapted to the work of the School. Tuck School is three stories high, the main portion one hundred feet front by fifty feet, with an addition at the rear sixty by forty feet of the same height as the main building. The first floor contains the administrative offices, instructors' offices, recitation rooms, and a lecture room seating two hundred and seventy-eight persons. The second floor contains additional recitation rooms, offices, a seminary room, a suitably equipped accounting room, and a library containing books, periodical literature, trade papers, and other material pertinent to the work. The third floor of the building is devoted to the uses of a Museum, which contains exhibits of domestic industries, comprising samples of raw materials, partly finished and finished products and by-products, lantern slides, photographs, maps, charts, and other illustrative matter. On this floor are also a dark room, a workroom for preparing exhibits and charts, and, opening into the Museum, a recitation room in which will be conducted those classes requiring special use of the Museum.

The general library of the College in Wilson Hall is available for Tuck School students.

EXPENSES

The tuition is the same as in the College, one hundred dollars, payable one half at the beginning of the year, the other half on January 10 succeeding. A further charge of twenty-five dollars is made for certain privileges, including use of the Library, membership in College Hall, and the various advantages growing out of the increase of the College plant. The scholarships provided for undergraduates are not available for students of the Tuck School except in so far as such students may be pursuing the work of the first year of the School as Seniors in Dartmouth College.

The expenses of a student will vary from $275 to $550 per year, the most important variable elements being room-rent and board. The College dormitories are open to students of the School.

THAYER SCHOOL OF CIVIL ENGINEERING

CALENDAR

1904

July 15 . . . Year of forty-one weeks for First Year Course began.

September 15 . Year of thirty-two weeks for Second Year Course began.

December 23 . Recess of eight days begins.

1905

April 26 . . . Year for the Class of 1905 ends. Degree of Civil Engineer conferred.

Summer work period for second class begins; continues about twenty weeks.

OFFICE HOURS

DIRECTOR — Robert Fletcher — Thayer Building, 10 A. M. to 12 M., each week day.

THAYER SCHOOL OF CIVIL ENGINEERING

OVERSEERS

THE PRESIDENT OF DARTMOUTH COLLEGE.
GEN. JOHN CARVER PALFREY . . . . *Boston, Mass.*
GEN. HENRY LARCOM ABBOT, LL.D. *Cambridge, Mass.*
JONATHAN PARKER SNOW, C. E. . . . . *Boston, Mass.*
PROF. GUSTAV JOSEPH FIEBEGER . . *West Point, N. Y.*

FACULTY

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

ROBERT FLETCHER, PH.D., DIRECTOR *and Professor of Civil Engineering.* 42 College St.

JOHN VOSE HAZEN, C.E., *Associate Professor of Civil Engineering.* 33 N. Main St.

JOHN LAROY MANN, C.E., *Associate Professor of Civil Engineering and Surveying.* 4 W. Wheelock St.

CHARLES ARTHUR HOLDEN, C.E., *Assistant Professor of Surveying.* 30 N. Main St.

FRANK EUGENE AUSTIN, B.S., *Instructor in Electrical Engineering.* 9 S. Park St.

STUDENTS

SECOND YEAR

Name	Residence	Room
Burdett, Owen Long, B. S.	*Wakefield, Mass.*	Thayer Building
Cross, Harold Newton	*Exeter, N. H.*	9 S. Park St.
McClary, Nelson Ford, B. S.	*Malone, N. Y.*	K K K House
Stowell, Franklin Henry, B. S.	*Worcester, Mass.*	Thayer Building
Tappan, Crosby	*Sharon, Mass.*	1 S. Park St.
Withey, Morton Owen, B. S.	*Meriden, Conn.*	X Φ House

INTERMEDIATE YEAR

(Students on leave of absence for field and office practice.)

Doonan, John Francis, B. S. *Greenville, N. H.*
Fellows, John Hibbard, B. S. *Tilton, N. H.*
Student, Massachusetts Institute of Technology.
Lewis, George Alexander *Hingham, Mass.*
Assistant, Isthmian Canal Commission, Panama.
Muchemore, Harrie Langdon *Portsmouth, N. H.*
Draftsman, Purdy & Henderson, Boston, Mass.
Perkins, Wayne Arthur *Newmarket, N. H.*
Rodman, N. Y. N. H. & H. R. R., Brockton, Mass.
Roby, Harrison George, B. S. *Whitewater, Wis.*
Rodman, Chi. & N. W. Ry., Caspar, Wyo.
Witham, Myron Ellis, B. S. *Pigeon Cove, Mass.*
Instructor, Mercersburg Acad., Mercersburg, Penn.
Woodward, Guy Eric, B. S. *Randolph, Vt.*
Chainman, N. Y. C. & H. R. R. R., Watertown, N. Y.

FIRST YEAR

Name	Residence	Room
Adams, James Seth	*Biddeford, Me.*	25 S. Main St.
Colson, George Ralph	*No. Billerica, Mass.*	9 S. Park St.
Conley, Walter Abbott	*Portland, Me.*	C. and G. House
Ela, Arthur John	*Lebanon, N. H.*	17 Thornton
Goodrich, Charles Francis	*Manchester, N. H*	1 S. Park St.
Haskell, Harold Morton	*Claremont, N. H.*	1 S. Park St.
Halch, Fletcher Ames	*Hanover, Mass.*	23 Reed
Hawley, Walter Earl	*Norwich, Vt.*	17 S. Main St.

Name	Residence	Room
King, Harold Davis	*West Farmington, Me.*	10 W. South St.
Libby, Ralph Leonard	*Dover, N. H.*	10 W. South St.
Messer, Hope Richard	*Claremont, N. H.*	1 S. Park St.
Russell, Verney Warren	*Norwich, Vt.*	9 S. Park St.
Shaw, William Thomas, B.S.	*Middleboro, Mass.*	Φ Δ Θ House
Smith, Chester Philbrook	*Norridgewock, Me.*	25 Lebanon St.
Smith, Leon Burdett	*West Derry, N. H.*	1 S. Park St.
Stone, James Hammond	*Concord, N. H.*	36 N. Main St.
Weston, Fred Sampson	*Middleboro, Mass.*	21 Hallgarten

HISTORICAL SKETCH

The THAYER SCHOOL OF CIVIL ENGINEERING was established more than a quarter of a century ago, to provide a ***distinctively post-graduate*** or professional course of study in Civil Engineering. In pursuance of this aim the founder, the late GENERAL SYLVANUS THAYER, Corps of Engineers, U. S. Army, a graduate of Dartmouth College in 1807, and distinguished as the organizer and "father" of the U. S. Military Academy, caused to be prepared a detailed "Programme" of the requisites for admission, covering the entire range of mathematics, chemistry, physics, and other studies, which were regarded as ***preparatory***. No specific requirements in language, literature, history, and other subjects which give a broader mental training, were made, because at that time few could get the preparation demanded without attending College at least three years, or during the usual four years' period. Hence, during the first twenty years of the Thayer School, 72 per cent of all who were admitted had already received the degree of B.S. or A.B., and of the remainder, 7 per cent had attended College three years, either as "classical" or "scientific" students.

It has been the consistent policy of the administration from the first to offer a general course of study in civil engineering, so developed as to include the essential principles and operations of all the important branches or divisions. There are no laboratories or special machinery for instruction in "mechanical engineering;" but the instruction in applied mathematics, mechanics and physics covers all of the fundamental theory of mechanical engineering, including the principal applications of electricity. The high standard has re-

stricted the number of students, but the aim is to secure the selected material of a larger mental training, from which may be developed broader men, fitted to assume in due time wider responsibilities.

REQUIREMENTS FOR ADMISSION

1. English Grammar; 2. Geography; 3. History of the United States; 4. Arithmetic; 5. Book-keeping: only the simpler principles and methods of single and double entry; 6. Algebra, *Taylor* or *Bourdon;* 7. Geometry, *Legendre;* 8. Trigonometry and Mensuration; 9. Compass Surveying, *Murray;* 10. Descriptive Geometry, including Shades, Shadows, Perspective, *Church;* and Isometrical Drawing, *Warren;* 11. Analytic Geometry, *Bowser* or *Hardy;* 12. Calculus, *Hardy;* 13. Analytic Mechanics, *Wood's* Elementary; 14. Chemistry: as nearly as possible a course equivalent to Chemistry 2, 3, and 4 of Dartmouth College courses; 15. Physics: as nearly as possible the equivalent of Physics 1, 2, 3, and 4, of the College courses (5 is desirable, but not insisted upon); 16. Astronomy, *Young's* Elements; 17. Physical Geography and Meteorology.

The text-books indicated above are recommended, but others fully equivalent may be used.

Candidates for admission should be present for examination two days, at least, before July 15, or, by appointment, in May or June. Notice of intention to apply should be given by April 15, or earlier if possible. None will be received for advanced standing. Certificates from preparatory institutions, as to scholarship and character, will have due weight, but in all cases the candidate is orally examined, more especially with reference to the essential principles of the branches numbered 6, 7, 8, 10, 11, 12, 13, 14, and 15. Prompt and accurate statement of principles and definitions is insisted upon, and a limited amount of blackboard work required. A neat set of mechanical drawings — constructions of important geometrical problems and a few leading problems of Descriptive Geometry — must be presented. Hence a fair degree of skill in mechanical drawing is one of the essential conditions.

Students of approved ability and proficiency in the Chandler Scientific Course of the College may elect the first year courses in the

Thayer School for their work of Senior year. At the close of the year, they may formally graduate from the College with the degree of B.S. They may then become eligible for the degree of Civil Engineer, after pursuing the regular engineering courses of the second year group. For such students, the engineering course is technically "post-graduate" only for the second or last year.

The conditions for such election are: a "standing" of at least 75 per cent, in the aggregate, in the subjects above specified, and not less than 85 per cent in at least three, nor less than 60 per cent in any one (not less than 75 per cent in Algebra, Trigonometry, and Descriptive Geometry); a special examination, as stated above; an intention to pursue, eventually, the entire engineering course, either in the next consecutive year, or as soon thereafter as the circumstances may permit. Only young men of correct habits and high character will be accepted or retained. Indulgence of an appetite for intoxicating drink will be sufficient reason for rejection of any applicant; — and such indulgence by an accepted member of the institution during his course will be sufficient cause for summary dismissal.

Students in Dartmouth College, in course of preparation for the Thayer School, are advised to take the following studies, both to meet the College requirements and to conform to present standards of qualification: —

FRESHMAN YEAR

First Semester	*Second Semester*
French 5 or 1	French 6 or 2
Graphics 1	Graphics 2
English 1	English 2
Mathematics	Mathematics
* Spanish 1	Spanish 2

Students entering the College, with the engineering courses in view, are advised to present for entrance: English, French, two years Latin, History I or II, Mathematics I and II, Physics, and Chemistry (elementary). It is advisable also to devote some time to free hand drawing, lettering, sketching from models, machinery, etc.

* Students preparing for the Thayer School, who present French for entrance to College, are allowed to take Spanish instead of German, but those students presenting German must take French in Freshman Year.

SOPHOMORE YEAR

First Semester	*Second Semeste.*
Graphics 3	Graphics 4
Mathematics	Mathematics
Physics 1	Physics 2
Physics 3	Physics 4
History 1	History 2
	Chemistry 2 for those not presenting Chemistry on entrance.

JUNIOR YEAR

First Semester	*Second Semester*
* Mathematics	Engineering 2
Chemistry 3	Chemistry 4
Astronomy 1	Astronomy 2
English 9	English 10
Economics 1	Economics 2
Graphics 5	Geology 2
Political Science 1	

* Mathematics must include Algebra, Plane and Higher Geometry, Trigonometry, Analytical Geometry, and the Calculus. Short courses in Differential Equations and Determinants are strongly urged because of their applications in the theory of electrotechnics.

COURSE OF STUDY AND PRACTICE

FIRST YEAR

Forty-one weeks, excluding all intermissions, each week comprising eleven half-days, of four and a half hours, devoted to study, field-work, or office-work. In emergencies the half-day is extended to five or five and a half hours.

A — THEORY AND PRACTICE OF SURVEYING. [This is preceded by a preliminary course of 104 hours during Junior year in College.]

1. INSTRUMENTS — Engineer's transit, wye-level, dumpy level, prismatic compass, and sextant; theory of and perfecting of all adjustments not required to be made by the maker; determining magnifying power of telescopes, sensitiveness of spirit-levels and compass needles, etc.

2. PRELIMINARY PRACTICE, until a required degree of precision is attained, and in which each student shall, by himself, or as one of a party, do a piece of test work of each of the following kinds with satisfactory precision: differential levelling; angle measurement in a small scheme of triangulation which is the basis of a systematic plan of survey for the season; a simple land survey involving ordinary measurement of lines and angles; measurement of a baseline 1500 feet or more in length by steel tape and method adequate to secure precision measured by a probable error not greater than 1 in 400,000; solar observations with engineer's transit for azimuth.

3. GENERAL PRACTICE — A topographical survey for a small contour map, including part of a village or town; a stadia survey of two to four or more miles making a closed circuit for checks; the routine of an ordinary railroad survey, preliminary and location, with some special practice in locating easement curves; some practice with the aneroid barometer, prismatic compass, and hand-level in reconnaissance. The office work includes the most approved methods of computing, use of planimeter and slide-rule, or more precise calculating machine, mapping, and tracing.

4. SPECIAL METHODS and instruments: — use of the plane-table, photography in surveying, geodetical surveying, and special practice relating to city and underground surveys, etc., can only be briefly considered in the class-room, for the most part. Practice in these specialties is nearly all beyond the domain of the School; the details are readily mastered in the future emergency by a proficient in what has preceded.

July 15 to Nov., 160 half-days.

B — MECHANICS AND APPLICATIONS. Principles of kinematics, statics, and kinetics; data and laws of friction; elements of mechanism; important applications in the stability of structures, machine design, operation of hoisting machinery, action of the locomotive engine, etc. 70 half-days.

C — MATERIALS OF ENGINEERING. 1. Physical and chemical properties and production of limes, cements, mortars, natural and artificial stone, timber, iron, steel, zinc, copper, aluminum, etc.; durability, preservative materials; a brief course in Mineralogy. 2. Mechanical properties, analytically and experimentally treated. 3. Laboratory tests of cements, iron, steel, wood, and other materials. 72 half-days.

A testing machine of sufficient capacity for tension, compression, and bending stress, affords sufficient practical illustration of the mechanics of materials in a prescribed series of tests made by each student. Several series of cement tests are carried out each year by groups of two or three, and written reports of these are made to the Instructor in proper form.

D — ORDINARY AND SPECIAL STRUCTURAL WORK AND OPERATIVE DETAILS. Course begun: Elementary courses on stone-cutting, masonry and foundations, arches and other masonry structures. 36 half-days.

E — FRAMED STRUCTURES: — TRUSSES FOR ROOFS AND BRIDGES, BUILDING SKELETONS, ETC. Course begun: — Graphical statics and other analysis applied to girders and simple trusses. Ordinary and essential details. One or two simple designs. 44 half-days.

G — ROADS, RAILROADS, AND TRANSPORTATION IN GENERAL. Course begun: — Roads, streets, and pavements, — construction and maintenance. 20 half-days.

L — ELECTRO-TECHNICS. Course begun. 27 half-days.

SECOND YEAR

Thirty-two weeks, of eleven half-days each, from about September 15 to last Tuesday in April (effective time only).

D — (concluded). Framing in wood and metal; advanced reading on masonry and foundations; theory of retaining walls; dams; chimneys; concrete-steel; fire-proof and slow-burning construction; renewals and enlargements. Engineering contracts and specifications. Auxiliary work and machinery. Inspection. 33 half-days.

E — (concluded). Analysis of stresses in trusses, framed arches, stone arches, and suspension bridges; details and maintenance. Frames of tall buildings. Tours for inspection. One design worked out. 50 half-days.

F — ROCKWORK, TUNNELING, AND MINING. Outlines of geology, — vacation reading. Explosives and blasting; special appliances and methods in subterraneous works. Reading and lectures. 14 half-days.

Copper mines and furnaces in neighboring towns in Vermont, formerly very extensively worked, afford good object lessons in mining and metallurgy.

G — (concluded). Economics of location, construction, and maintenance of railways. A brief study of street railways (electric and cable traction, etc.), mountain railways, telpherage, and marine transportation. 33 half-days.

Tuck School lectures on history and theory of transportation and on railroad operation and administration.

H — HYDRAULIC ENGINEERING. Statics and dynamics of fluids; principles and data of hydraulics; collection, storage, purification, and distribution of water for town supply, power, and irrigation. Hydraulic motors; theory, construction, and operation; development of water-power. Gauging of Connecticut River. Measurements of flow by weirs and nozzles, of efficiency of motors, friction in pipes, etc. 44 half-days.

The Hanover Waterworks, constructed at a cost of $65,000, affords all needed conditions for hydraulic experiments under a head of 190 feet, in a laboratory equipped for all such operations of recognized importance. It is also an example of successful construction and operation, including a reservoir of 135,000,000 gallons capacity, a dam 700 feet long, gate-house, and main and distribution system of about 8 miles of pipe, all of which is available for inspection and for study of rainfall and its actual collection, water-ram in the pipes, efficiency of fire-streams, etc.

I — HEAT, HEAT ENGINES, AND POWER. Principles of Thermodynamics; fuels, and their combustion; steam. Heat engines: construction and operation of typical forms; application of laws. Development and transmission of power. 33 half-days.

The central steam-heating system of the College, serving 22 buildings, affords opportunity for studying efficiency of boilers and furnaces, at times when regular tests are made. The mills at Wilder, near by on the Connecticut River, give abundant facilities for studying the operation of a large water-power plant.

J — SANITARY ENGINEERING. Drainage and sewerage; systems and appliances; governing principles. Heating and ventilation. Special study of "Separate Systems" and methods of sewage disposal. Sand filtration of water and sewage. 22 half-days.

The village has three separate systems of sewerage, one built by the College and adapted to a suitable disposal plant hereafter. Successful examples of heating and ventilation may be studied in the new buildings of the College. A set of model sand filters has been in operation for some years at the Thayer School building, and those who take special interest in the problem of the purification of water supply as affected by micro-organisms may arrange for such studies so far as time will permit.

K — CANALS, IMPROVEMENT OF RIVERS AND HARBORS. Principles; surveys and observations; construction in different cases, — means and methods of procedure. (Briefly by reading and lectures.)

L — PRINCIPLES OF APPLIED ELECTRICITY. In this course, the method of instruction aims to impart a concise, practical knowledge of fundamental laws and phenomena, and of the best modern types of electrical apparatus, as to their design, construction, and operation, — all adapted to meet the demands of actual practice.

The recitations deal with the analysis of the magnetic field and lines of force; the magnetic circuit; properties of the electric current; electro-magnets; electro-magnetic induction; electrical units; energy of the electric circuit, and the application of the foregoing to primary and storage cells, motors and dynamos, telephone and telegraph, electric lighting and transformers.

The laboratory exercises are arranged to show the construction and use of the more important measuring instruments, galvanometers, voltmeters, ammeters, wattmeters, and to give practice in testing for resistance and insulation.

Supplementary lectures will deal more specifically with the construction, operation, and characteristics of motors, dynamos, and transformers; storage batteries; alternating currents; electrical transformation; transmission and distribution of energy. 72 half-days.

METHODS OF INSTRUCTION. PRACTICE. During the first year, instruction is given chiefly by daily recitations from text-books and ample practice in field and laboratory. During the second year the

character and range of subjects call for wider reading of treatises and current technical literature, which is promoted by full programmes of the courses, giving all of the important references to date. This is supplemented by recitations, lectures, and examinations.

The amount of field-work and other practice is made sufficient only to elucidate and emphasize the more important principles. In this connection carefully planned tours, for the study and inspection of works in progress or completed, are made when advantageous for purposes of instruction.

SUMMER WORK-PERIOD AND INTERMEDIATE YEAR. In recent years opportunities for summer employment have exceeded the supply of available young men. In most cases the students are qualified only for quite subordinate positions as draughtsmen, assistants in city engineers' offices, on railway surveys or maintenance, U. S. Government surveys, etc. The advantages from such practice vary with the opportunity, character, and aptitude, and previous experience of the man. Some find it necessary or desirable to continue in such employment during the entire following year. These are entered in the Annual and College Catalogue as a non-resident division for an Intermediate Year.

BUSINESS RELATIONS OF THE ENGINEER. Arrangement is made for attendance of Thayer School students upon lectures given in the Tuck School of Administration and Finance, upon the law of contracts and upon organization of industrial plants, etc. On the other hand Tuck School students are invited to participate with Thayer School students in such parts of courses G and K as are appropriate to their own courses of study.

GENERAL QUALIFICATIONS OF A GRADUATE. He must have a good understanding of, and be adept in, the routine practice of surveying, so as to hold his place under an exacting chief of party; he must be at the start an acceptable junior draughtsman and an accurate computer, able to make a good original, a good tracing, and a blueprint; he must have a sufficient practical knowledge of the ordinary materials of construction, gained by adequate manipulations in the laboratory and by such observation and experience as every available opportunity will bring to him; and he must have developed the habit and instinct of making neat and accurate and sufficiently complete records, in a well-kept note-book, of the results of his observations

and of his own work; also the habit and method of keeping himself well informed as to Engineering progress through current technical literature.

TERMS, EXAMINATIONS, AND EXPENSES

The course of study and practice continues through two years, commencing, for the entering class, July 15, and continuing until the last Tuesday in April. This allows twenty weeks of vacation for summer employment, when procurable. There may be a short recess at the Christmas holidays. Examinations are held from time to time, as the work progresses. The annual examination is held before the Board of Overseers, in April.

Tuition is one hundred and twenty-five dollars per annum, one-half to be paid each Semester in advance. There is no provision for pecuniary aid.

The annual expenses of an economical student will vary not far from $400, including tuition, books, and stationery, board, fuel, light, and drawing instruments.

Only those students who maintain an average of 75 per cent during the first year of the Thayer School work will be allowed to enter upon the courses of the second year, or be entered in the College catalogue as students of an Intermediate year.

After a satisfactory final examination before the Board of Overseers, including an acceptable thesis, the degree of Civil Engineer will be conferred.

The THAYER SCHOOL ANNUAL, published in November, 1904, contains further information relating to the work of the institution, its graduates, etc. This will be sent, and inquiries answered, on application to the President, the Dean, or

PROFESSOR ROBERT FLETCHER, *Director.*

MEDICAL SCHOOL

CALENDAR

1904

August 15 . . . . Third and Fourth Year Courses began.

September 22 . . . First and Second Year Courses began.

Recess from December 22, 10.00 A.M. *to January* 4, *inclusive.*

1905

March 31 . . . . Third and Fourth Year Courses end.
Examinations by Delegates.
Graduating Exercises.

Recess from April 12, 10.00 A.M. *to April* 25, *inclusive.*

June 24 . . . . . First and Second Year Courses end.

OFFICE HOURS

DEAN — William Thayer Smith — Medical Building, 10.00 A. M., daily.

MEDICAL SCHOOL

FACULTY

WILLIAM JEWETT TUCKER, D.D., LL.D. PRESIDENT.

WILLIAM THAYER SMITH, M.D., LL.D., DEAN *and Professor of Physiology.* Hanover.

GILMAN DUBOIS FROST, A.M., M.D., SECRETARY *and Professor of Anatomy.* Hanover.

HENRY MARTYN FIELD, A.M., M.D., *Professor Emeritus of Therapeutics.* Pasadena, Cal.

PHINEAS SANBORN CONNER, M.D., LL.D., *Professor Emeritus of Surgery.* 215 W. 9th Street, Cincinnati.

CHARLES BEYLARD NANCREDE, M.D., LL.D., *Professor of Surgery.* Ann Arbor, Mich.

EDWIN JULIUS BARTLETT, A.M., M.D., *Professor of Chemistry.* Hanover.

AUGUSTUS PALMER DUDLEY, M.D., *Professor of Gynecology.* 678 Madison Ave., New York City.

TILGHMAN MINNOUR BALLIET, A.M., M.D., *Professor of Therapeutics.* 3709 Powelton Ave., Philadelphia.

WILLIAM PATTEN, PH.D., *Professor of Biology* (*Zoölogy*). Hanover.

JOHN MARTIN GILE, A.M., M.D., *Professor of the Science and Practice of Medicine.* Hanover.

COLIN CAMPBELL STEWART, PH.D., *Associate Professor of Physiology.* Hanover.

HOWARD NELSON KINGSFORD, M.D., *Professor of Pathology and Bacteriology.* Hanover.

JOHN ORDRONAUX, M.D., LL.D., *Professor of Medical Jurisprudence.* Roslyn, N. Y.

GRANVILLE PRIEST CONN, A.M., M.D., *Professor of Hygiene.* Concord, N. H.

EDWARD COWLES, M.D., LL.D., *Professor of Mental Diseases.* Waverley, Mass.

GEORGE ADAMS LELAND, A.M., M.D., *Professor of Oto-Laryngology.* 669 Boylston Street, Boston.

MYLES STANDISH, A.M., M.D., *Professor of Ophthalmology.* 6 St. James Ave., Boston.

JOHN OSBORN POLAK, M.S. M.D., *Lecturer on Obstetrics.* 287 Clinton Ave., Brooklyn, N. Y.

HARVEY PARKER TOWLE, A.B., M.D., *Lecturer on Dermatology.* 409 Marlboro St., Boston.

PERCY BARTLETT, A.B., M.D., *Instructor in Anatomy.* Hanover.

GEORGE RICHARD LYMAN, A.M., *Asst. Prof. Biology (Botany).* Hanover.

CHARLES ERNEST BOLSER, PH.D., *Instructor in Chemistry.* Hanover.

DELEGATES FROM THE NEW HAMPSHIRE MEDICAL SOCIETY

MILTON SAWYER WOODMAN, M.D., West Lebanon, N. H.

IRA JOSLIN PROUTY, M.D., Keene, N. H.

DELEGATES FROM THE VERMONT MEDICAL SOCIETY

LESTER WARREN BURBANK, M.D., Cabot, Vt.

ORVILLE CLARK BAKER, M.D., Brandon, Vt.

STUDENTS

FOURTH YEAR

Name	Residence	Room
Bowler, John William	*Hanover, N. H.*	22 Occom Ridge
Chase, Daniel Robert	*Orford, N. H.*	4 School St.
Dearborn, Selwyn Kenson, A.B.	*Hanover, N. H.*	5 W. South St.
Fitch, Emery Moore	*Princeton, Me.*	9 College St.
Graham, George Sellers, B.L.	*Everett, Mass.*	13 E. Wheelock St.
Griffin, John Francis, B.L.	*So. Hadley Falls, Mass.*	Allen Hall
Kimpton, Arthur Roland	*East Somerville, Mass.*	23 Allen St.
Leach, Homer Zenas, A.B.	*Hanover, N. H.*	Medical Building
Merrill, Ayres Phillip	*Pittsfield, Mass.*	4 W. Wheelock St.
Pattrell, Arthur Ellis, B.S.	*Wilder, Vt.*	4 School St.
Potts, Joseph Henry	*No. Billerica, Mass.*	12 Occom Ridge
Steeves, Ernest Colpitts	*Hanover, N. H.*	11 E. Wheelock St.
Whitcher, Burr Royce, A.B.	*Woodsville, N. H.*	9 College St.

THIRD YEAR

Bennett, Hamlin Perley, A.B.	*Farmington, N. H.*	4 School St.
Bullard, Edward Arthur	*Cambridge, Mass.*	6 College St.
Chedel, Charles Brigham, A.B.	*Pittsfield, Vt.*	Bridgman Block
Craig, Willis Parker, B.L.	*Marlow, N. H.*	Allen Hall
Farr, Irvin Harris	*Holyoke, Mass.*	19 Maple St.
Hoyt, Park Rowe	*Lakeport, N. H.*	Bridgman Block
Johnson, Walter Alphonso	*East Hampstead, N. H.*	23 S. Main St.
Mathes, Roy Wentworth	*Durham, N. H.*	19 Maple St.
McCorison, Carl Copeland	*North Berwick, Me.*	Bridgman Block

SECOND YEAR

Carroll, Henry Gerald	*Peabody, Mass.*	10 Lebanon St.
Ellis, Arthur Henry	*North Billerica, Mass.*	10 E. South St.
Giles, Raymund Larkin	*Salem, Mass.*	5 W. South St.
Holmes, Robert Ward	*Keene, N. H.*	7 W. South St.
Howland, Clifford	*Elkins, N. H.*	4 W. Maple St.

Name	Residence	Room
Huse, Ernest Leslie	*Newton Junction, N. H.*	13 E. Wheel'k St.
Littlewood, Thomas	*Fisherville, Mass.*	10 E. South St.
Mangurian, Armen Steven, A.B.	*Hanover, N. H.*	17 S. Main St.
Manning, Patrick John	*Hyde Park, Mass.*	25 S. Main St.
Nealley, Willis Grafton	*South Berwick, Me.*	4 School St.
Nichols, Herbert Nathan Thomas, A.B.	*Hanover, N. H.*	40 S. Main St.
Norton, Daniel Capron, B.S.	*New Britain, Conn.*	25 N. Main St.
Phelps, Olney Draper, A.B.	*Warren, Mass.*	9 College St.
Robertson, Charles Warner, Ph.G.	*Bridgeport, Conn.*	17 S. Main St.
Thompson, Howard Edward	*Bethlehem, N. H.*	5 W. South St.

FIRST YEAR

Bogue, Henry Virgil	*Newport, Vt.*	25 S. Main St.
Clow, Arlington Ingalls	*Orange, Mass.*	5 College St.
Crane, John Patrick	*Salem, Mass.*	10 Lebanon St.
Crittendon, George Alanson	*Otis, Mass.*	10 E. South St.
Fromm, Nelson Kaufman	*Albany, N. Y.*	20 Fayerweather
Gane, William Howard	*White River Junction, Vt.*	Davison Block
Gilbert, Oscar Bowen	*Woonsocket, R. I.*	27 Fayerweather
Graves, Allen Bouthrod	*Lynchburg, Va.*	11 Elm
Kenney, John Joseph	*Franklin, Mass.*	21 School St.
Knox, Howard Andrew	*Coventry, Vt.*	5 W. South St.
Loder, Halsey Beach	*Thetford, Vt.*	ΦΔΘ House
McCabe, Frank Joseph	*Randolph, Mass.*	C. and G. House
McMillan, Andrew Louis, Jr.	*Hanover, Mass.*	2 Sanborn
Mellen, Harry George	*Washington, N. H.*	23 S. Main St.
Mulvanity, John Joseph	*Nashua, N. H.*	16 Reed
Quigley, William Sullivan	*Charlestown, Mass.*	10 W. South St.
Root, Raymond Richmond	*Georgetown, Mass.*	2 Fayerweather
Torrey, Arthur Stanley	*Gloucester, Mass.*	15 S. Main St.
Towle, Murray Hanson	*Northwood Ridge, N. H.*	2 Sargent St.
Uniac, Thomas Vincent	*Randolph, Mass.*	4 Sanborn
Watson, Harry Lyman	*Manchester, N. H.*	29 Reed
Weeks, Leon Motley	*Wilder, Vt.*	5 W. South St.
Wilkins, Samuel Henry, Jr.	*Somerville, Mass.*	22 Sanborn

REQUIREMENTS FOR ADMISSION

Applicants for admission to this School must have

(*a*) graduated from a registered College, or

(*b*) satisfactorily completed a full course in a registered Academy or High School, or

(*c*) had a preliminary education considered and accepted as fully equivalent.

Upon bringing evidence of such preparation they will be received on certificate, provided the requirements in Latin, Chemistry, and Physics, specified below, have been met.

All other candidates for admission, unless they can show by certificate from some approved fitting school or college that they have passed examinations in a part of the requirements, will be examined in all the following subjects:

English, History (two of the four parts, *a*, *b*, *c*, or *d*), Mathematics, Latin, Chemistry, and Physics, according to specifications given below.

SUBJECTS WITH SPECIFICATIONS

ENGLISH —

Two sets of books are prescribed for preparation in English, one for reading, the other for more careful study. No candidate will be accepted in English whose work is notably deficient in point of spelling, punctuation, idiom, or division into paragraphs. The requirement consists of two parts.

I. Reading. — A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and be able to answer simple questions on the lives of the authors; he must also show the ability to write a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for

only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may be allowed to present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's The Merchant of Venice and Julius Cæsar; The Sir Roger de Coverley Papers in *The Spectator;* Goldsmith's The Vicar of Wakefield; Coleridge's The Ancient Mariner; Scott's Ivanhoe; Carlyle's Essay on Burns; Tennyson's The Princess; George Eliot's Silas Marner; Lowell's The Vision of Sir Launfal.

In 1906, 1907, 1908. — Shakespeare's Macbeth and The Merchant of Venice; The Sir Roger de Coverley Papers in *The Spectator;* Irving's Life of Goldsmith; Coleridge's The Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur; Lowell's The Vision of Sir Launfal; George Eliot's Silas Marner.

II. Study and Practice. — This part of the requirement presupposes the thorough study of each of the works named below. The test will be upon subject-matter, form, and structure.

The books set for this part of the requirement will be:

In 1904, 1905. — Shakespeare's Macbeth; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

In 1906, 1907, 1908. — Shakespeare's Julius Cæsar; Milton's L'Allegro, Il Penseroso, Comus, and Lycidas; Burke's Speech on Conciliation with America; Macaulay's Essay on Milton, and Life of Johnson.

HISTORY (including Historical Geography) —

(*a*) The History of Greece to the death of Alexander, with due reference to Greek life, literature, and art.

(*b*) The History of Rome to the accession of Commodus, with due reference to literature and government.

(*c*) English History, with due reference to social and political development.

(*d*) American History, with the elements of Civil Government.

A candidate may elect any two of the four divisions in History (*a*, *b*, *c*, or *a*).

(*a*) *Greek History* —

Oman's or Myers' History of Greece.

(*b*) *Roman History* —

Allen's Short History of the Roman People, and 300 pages additional reading.

(*c*) *English History* —

either Higginson and Channing's English History for Americans, *or* Montgomery's Leading Facts of English History, *or* Gardiner's English History for Schools, each with at least 300 pages additional reading, which may be selected from the following list: Creighton's Age of Elizabeth, Guest's Lectures on English History, Gardiner's Puritan Revolution, Freeman's Short History of the Norman Conquest, Green's Short History of the English People, Ch. i and Ch. vi, Sections iii–vii, Mrs. J. R. Green's Henry II, Macaulay's History of England, Ch. iii.

(*d*) *American History* —

either (1) Channing's Students' History of the United States *or* Johnston's History of the United States for Schools, each with 200 pages additional reading;

or (2) Higginson's Young Folks' History of the United States, through Ch. xvi, and *either* Channing's United States, 1765–1865, *or* Johnston, from beginning of Period V;

or (3) Higginson; Lodge's English Colonies, Ch. ii and xxii; Morse's John Quincy Adams, Ch. ii and iii; Josiah Quincy's Figures of the Past.

MATHEMATICS —

Algebra — The fundamental operations, simple equations with applications to problems involving two or more unknown quantities, the principles of factoring, involution and evolution applied to expressions containing fractional and negative exponents,

radicals, including imaginaries and radical equations, quadratic equations, with applications to problems involving two unknown quantities.

Plane Geometry — With the use of the metric system in the construction and solution of numerical problems based on the principal theorems.

LATIN —

The ability to translate easy Latin prose.

This is the equivalent of a two years' course in an approved High School.

CHEMISTRY —

Acquaintance by laboratory work with elementary processes and with the properties of substances common in chemistry; familiarity with the chemical notation in its experimental and arithmetical meaning, including the ability to solve simple problems based on the relations expressed by formulas and equations; understanding and ability to use correctly the ordinary terms of Descriptive Chemistry. Bartlett's Laboratory Exercises, Parts i–v (exclusive of Class i, part ii), or equivalent. A certified note-book of laboratory work must be presented. The student should have had in addition recitations based upon any good elementary descriptive text-book through the non-metallic and metallic elements.

To meet the above requirement, at least 110 hours of elementary chemistry are necessary, one-half laboratory work, illustrating the preparation and the properties of the substances ordinarily treated in elementary chemistry. Qualitative Analysis will not be accepted as an equivalent for the laboratory work prescribed.

PHYSICS —

The equivalent of at least one hundred and ten one-hour exercises, of which as many as forty should be practical exercises in the laboratory. The student is expected, in the time devoted to the laboratory work, to perform at least forty experiments, and to have kept a neat and orderly record of the same in a note-book, described in his own words. This note-book should bear the certification of the instructor, and be presented for inspection at the time of the entrance examinations to the School.

The student should be taught, as far as possible, to apply the simpler principles of Algebra and Geometry to the solution of practical problems in Physics.

Any one of the following texts or manuals may be recommended for use in secondary schools preparing students for the Medical School: Elements of Physics, Carhart and Chute; Elements of Physics, Crew; A Text-Book of Physics, Hall and Bergen; Outlines of Physics, Nichols; Elements of Physics, Gage.

The Examinations for admission to the First or entering Class will be held in Room H, Chandler Hall, as follows: —

Physics	3.00 P.M.,	Sept.	14
Chemistry	3.00 P.M.	"	15
Mathematics	9 00 A.M.	"	16
History	3.00 P.M.	"	16
Latin	9.00 A.M.	"	18
English	3.00 P.M.	"	18

ADMISSION TO THE SECOND YEAR

Candidates for admission to the Second Year must pass on September 18, 19, and 20, 1905, the examinations in Human Anatomy, Physiology, Inorganic Chemistry, Histology, and Bacteriology already taken by that class.

ADMISSION TO THE THIRD YEAR

Candidates for admission to the Third Year must pass on August 10, 11, and 12, 1905, the examinations in Human Anatomy, Physiology, Inorganic and Medical Chemistry, Materia Medica, Pathology, Histology, and Bacteriology already taken by that class.

Such candidates should be in town August 10.

ADMISSION TO THE FOURTH YEAR

Candidates for admission to the Fourth Year must pass the examinations in Human Anatomy, Physiology, Inorganic and Medical Chemistry, Histology, Bacteriology, Materia Medica, Pathology, and Physical Diagnosis, already taken by that class.

Such candidates should be in town August 10.

Students in the Academic department of Dartmouth College, may, at the beginning of their Senior year, matriculate in the Medical School, and take during Senior year the work and the examinations of the first year of the Medical School.

They will thus be able to earn the two degrees in seven years.

Students desiring to pass from the Academic Department of the College to the Medical School must bring the certificate of the President of the College, with his approval of such transfer.

COURSE OF STUDY

Professor Myles Standish, M.D., will give the opening lecture of the One Hundred and Ninth Annual Course on Tuesday, the fifteenth day of August, 1905, at 4 P. M.

Full courses in all departments of Medical Science will be given during the session of seven months' duration. For the convenience of non-resident professors, eight or nine lectures are given in each branch weekly until their part of the work in their several branches is finished. The work in each branch is then continued by the resident professors, by lectures, by recitations, by work in the laboratories, and by clinics and ward classes at the Hospital, until the end of the session, when a written examination in each branch is given.

The course covers four years, and students are required to complete the work of each year in regular order, passing an examination at the close of each year in the studies of that year.

FIRST YEAR

Chemistry, Medical Physics, Biology, Comparative Anatomy, Human Histology, Human Anatomy, Physiology, Bacteriology.

SECOND YEAR

Systematic Anatomy, Physiology, Medical Chemistry, Pathology, Embryology, Materia Medica, Analysis of blood and urine.

THIRD YEAR

Regional Anatomy, Pathology, Obstetrics, Surgery, Medicine, Therapeutics, Physical and Differential Diagnosis, Gynecology.

FOURTH YEAR

Therapeutics, Surgery, Medicine, Obstetrics, Gynecology, Mental Diseases, Medical Jurisprudence, Hygiene, Ophthalmology, Laryngology, Otology, Diseases of the Skin.

SCHEDULE, 1904-1905

FIRST YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Semester I.	Semester II.	Semester I.	Semester II.	Semester I.	Semester II.
A.M. 8	Chemistry. Laboratory or Recitation. Dr. Bolser.	Comparative Anatomy. Laboratory or Lecture. Dr. Patten.	Histology. Section II. Laboratory. Dr. Kingsford.	Physiology. Laboratory. Dr. Stewart.	Chemistry. Laboratory or Recitation. Dr. Bolser.	Comparative Anatomy. Laboratory or Lecture. Dr. Patten.
9						
10	Histology. Section I. Laboratory. Dr. Kingsford.	Chemistry. Laboratory. Dr. Bolser.	Human Anatomy. Recitation. Dr. Frost.	Human Anatomy. Recitation. Dr. P. Bartlett.	Histology. Recitation. Dr. Kingsford.	Chemistry. Laboratory. Dr. Bolser.
11			Physiology. Lecture. Dr. Stewart.		Medical Physics. Recitation. Dr. Stewart.	
P.M. 1	Biology. Laboratory. Mr. Lyman.	Histology and Bacteriology. Laboratory. Dr. Kingsford.	Medical Physics. Laboratory. Dr. Stewart.	Histology and Bacteriology. Laboratory. Dr. Kingsford.	Biology. Laboratory. Mr. Lyman.	
2						

FIRST YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Semester I.	Semester II.	Semester I.	Semester II.	Semester I.	Semester II.
Histology. Section II. Laboratory. Dr. Kingsford.	Physiology. Laboratory. Dr. Stewart.	Chemistry. Laboratory or Recitation. Dr. Bolser.	Comparative Anatomy. Laboratory or Lecture. Dr. Patten.	Histology. Section II. Laboratory. Dr. Kingsford.	Physiology. Laboratory. Dr. Stewart.
Human Anatomy. Recitation. Dr. Frost.	Human Anatomy. Recitation. Dr. P. Bartlett.	Histology. Section I. Laboratory. Dr. Kingsford.	Chemistry. Laboratory Dr. Bolser.	Human Anatomy. Recitation. Dr. Frost.	Human Anatomy. Recitation. Dr. P. Bartlett.
Physiology. Lecture. Dr. Stewart.				Physiology. Lecture. Dr. Stewart.	
Medical Physics. Laboratory. Dr. Stewart.	Histology and Bacteriology. Laboratory. Dr Kingsford.	Biology. Laboratory. Mr. Lyman.	Histology and Bacteriology. Laboratory. Dr. Kingsford.		

SECOND YEAR

<table>
<tr><th></th><th>MONDAY.</th><th colspan="2">TUESDAY.</th><th>WEDNESDAY.</th></tr>
<tr><th>Hour.</th><th>Semester I. | Semester II.</th><th>Semester I.</th><th>Semester II.</th><th>Semester I. | Semester II.</th></tr>
<tr><td>A.M.
8</td><td rowspan="2">Physiology.
Laboratory.
Dr. Stewart.</td><td rowspan="2">Embryology.
Laboratory.
Dr. Patten.</td><td></td><td rowspan="2">Physiology.
Laboratory.
Dr. Stewart.</td></tr>
<tr><td>9</td><td>Materia Medica.
Recitation.
Dr. P. Bartlett.</td></tr>
<tr><td>10</td><td>Anatomy.
Recitation.
Dr. P. Bartlett.</td><td colspan="2" rowspan="2">Pathology.
Laboratory.
Dr. Kingsford.</td><td>Anatomy.
Recitation.
Dr. P. Bartlett.</td></tr>
<tr><td>11</td><td></td><td></td></tr>
<tr><td>P.M.
1</td><td rowspan="2">Analysis of Blood.
Dr. Kingsford — To Nov. 1.

Dissection.
Dr. P. Bartlett.
Nov. 1 — Apr. 1.

Analysis of Urine.
Dr. Kingsford.
Apr. 1 — June 18.</td><td colspan="2" rowspan="2">Medical
Chemistry.
Laboratory.
Dr. E. J. Bartlett.</td><td rowspan="2">Dissection.
Laboratory.
Dr. P. Bartlett.</td></tr>
<tr><td>2</td></tr>
</table>

SECOND YEAR

<table>
<tr><th colspan="2">THURSDAY.</th><th colspan="2">FRIDAY.</th><th colspan="2">SATURDAY.</th></tr>
<tr><th>Semester I.</th><th>Semester II.</th><th>Semester I.</th><th>Semester II.</th><th>Semester I.</th><th>Semester II.</th></tr>
<tr><td>Embryology.
Laboratory.
Dr. Patten.</td><td>Materia
Medica.
Recitation.
Dr. P. Bartlett.</td><td colspan="2">Physiology.
Laboratory.
Dr. Stewart.</td><td>Embryology.
Laboratory.
Dr. Patten.</td><td>Materia
Medica.
Recitation.
Dr. P. Bartlett.</td></tr>
<tr><td colspan="2" rowspan="2">Pathology.
Laboratory.
Dr. Kingsford.</td><td colspan="2">Anatomy.
Recitation.
Dr. P. Bartlett.</td><td colspan="2" rowspan="2">Pathology.
Laboratory.
Dr. Kingsford.</td></tr>
<tr><td colspan="2">Medical Chemistry.
Recitation.
Dr. E. J. Bartlett.</td></tr>
<tr><td colspan="2">Medical
Chemistry.
Laboratory.
Dr. E. J. Bartlett.</td><td colspan="2">Analysis of Blood.
Dr. Kingsford — To Nov. 1.

Dissection.
Dr. P. Bartlett.
Nov. 1 — Apr. 1.

Analysis of Urine.
Dr. Kingsford.
Apr. 1 — June 18.</td><td colspan="2"></td></tr>
</table>

THIRD YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.
A.M. 8	Therapeutics. Lecture. Dr. Balliet.	Pathology. Lecture. Dr. Kingsford.	Therapeutics. Lecture. Dr. Balliet.	Minor Surgery. Demonstration. Dr. P. Bartlett.	Therapeutics. Lecture. Dr. Balliet.	Pathology. Lecture. Dr. Kingsford.
9	Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.		Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.
10	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.
11	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgical Clinic. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile.
P.M.	Lecture.	Lecture.				
1.30 to 2.30	Ophthalmology. Dr. Standish. Aug. 16 to Aug. 26. Otolaryngology. Dr. Leland. Aug. 28 to Sept. 9. Dermatology. Dr. Towle. Sept. 11 to Sept. 23. Gynecology. Dr. Dudley. Sept. 18 to Sept. 30.	Obstetrics. Dr. Polak. Oct. 2 to Oct. 14. Mental Disease. Dr. Cowles. Medical Jurisprudence. Dr. Ordronaux. Hygiene. Dr. Conn.	Same as Monday.		Same as Monday.	
2.30 to 4.30	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.	Surgical Clinic. Dr. Nancrede.	Dissection. Laboratory. Dr P. Bartlett.	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.

THIRD YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.
Therapeutics. Lecture. Dr. Balliet.	Minor Surgery. Demonstration. Dr. P. Bartlett.	Therapeutics. Lecture. Dr. Balliet.		Therapeutics. Lecture. Dr. Balliet.	Minor Surgery. Demonstration. Dr. P. Bartlett.
Surgery. Lecture. Dr. Nancrede.	Minor Surgery. Demonstration. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Anatomy. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Minor Surgery. Demonstration. Dr. Smith.
Therapeutics. Lecture. Dr. Balliet.	Gynecology. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diagnosis. Demonstration. Dr. Gile.
Surgery. Lecture. Dr. Nancrede.	Gynecological Clinic. Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost or Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Surgical Clinic. Dr. Smith.
Same as Monday.		Same as Monday.			
Surgical Clinic. Dr. Nancrede.	Dissection. Laboratory. Dr. ——.	Clinic by the Lecturer of the last hour.	Sections at Hospital for Clinical work in laboratory and wards.		

FOURTH YEAR

	MONDAY.		TUESDAY.		WEDNESDAY.	
Hour.	Aug. 16 to Sept. 23.	Sept. 25 to Mar 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.
A.M. 8	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.
9	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Diseases of Children. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.
10	Therapeutics. Lecture. Dr. Balliet.	Diseases of the Nervous System. Recitation. Dr. Frost.	Therapeutics. Lecture. Dr. Balliet.	Surgical Clinic.	Therapeutics. Lecture. Dr. Balliet.	Diseases of the Nervous System. Recitation. Dr. Frost.
11	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile.
P.M. 1.30 to 2.30	Lecture. Ophthalmology. Dr. Standish. Aug. 16 to Aug. 26. Otolaryngology. Dr. Leland. Aug. 28 to Sept. 9. Dermatology. Dr. Towle. Sept. 11 to Sept. 23. Gynecology. Dr. Dudley. Sept. 18 to Sept. 30.	Lecture. Obstetrics. Dr. Polak. Oct. 2 to 14. Mental Disease. Dr. Cowles. Medical Jurisprudence. Dr. Ordronaux. Hygiene. Dr. Conn.	Same as Monday.		Same as Monday.	
2.30 to 4.30	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.	Surgical Clinic. Dr. Nancrede.	Sections at Hospital for clinical work in wards.	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.

FOURTH YEAR

THURSDAY.		FRIDAY.		SATURDAY.	
Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.	Aug. 16 to Sept. 23.	Sept. 25 to Mar. 31.
Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Medicine. Recitation. Dr. Gile.
Surgery. Lecture. Dr. Nancrede.	Obstetrics. Recitation. Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Surgery. Recitation. Dr. Smith.	Surgery. Lecture. Dr. Nancrede.	Obstetrics. Recitation. Dr. Frost.
Therapeutics. Lecture. Dr. Balliet.	Gynecology. Recitation. Dr. Gile.	Therapeutics. Lecture. Dr. Balliet.	Diseases of Children. Recitation. Dr. Frost.	Therapeutics. Lecture. Dr. Balliet.	Surgical Clinic.
Surgery. Lecture. Dr. Nancrede.	Gynecological Clinic. Dr. Gile.	Surgery. Lecture. Dr. Nancrede.	Medical Clinic. Dr. Gile or Dr. Frost.	Surgery. Lecture. Dr. Nancrede.	Dr. Smith.
Same as Monday.		Same as Monday.			
Surgical Clinic. Dr. Nancrede.	Sections at Hospital for clinical work in wards.	Clinic by the Lecturer of the last hour.	Sections at Hospital for clinical work in wards.		

DEPARTMENTS OF INSTRUCTION

BIOLOGY AND COMPARATIVE ANATOMY

PROFESSORS PATTEN AND LYMAN

FIRST YEAR

1. Elementary Biology. An introductory course giving a general survey of the field of Botany, some of the fundamental principles of Biology common to plants and animals, and a comprehensive review of the physiology, morphology, and reproduction of plants, special attention being paid to the lower plants and to the relation of fungi and bacteria to putrefaction, fermentation, and disease. The laboratory work involves the constant use of the compound microscope. One lecture and two laboratory exercises of two hours each per week. (Coulter's *Plants*.) First Semester, fifty-four exercises.

PROFESSOR LYMAN.

2. Comparative Anatomy of Vertebrates. The outlines of the classification of Vertebrates, the homologies and the histological structure of vertebrate organs, the theories of the structure of the vertebrate head, and of the derivation of the Chordata will be discussed. The object of the course is to illustrate the evolution of the vertebrate type of animals from the lowest fishes, and related forms, up to man, and to discuss some of the conditions that are coincident with, or determine, the progressive modification of various vertebrate organs. (Wiedersheim's *Comparative Anatomy of Vertebrates*, Gray's *Anatomy*, and the embryological text-books of Minot, Hertwig-Mark, etc.) Second Semester, fifty-four two-hour exercises.

PROFESSOR PATTEN.

SECOND YEAR

3. Vertebrate Embryology. A study of the Embryology of the frog, the chick, and a mammal. (Minot's *Human Embryology*, Hertwig's *Embryology of Vertebrates*, Marshall's *Vertebrate Embryology*.) First Semester, seventy-two two-hour exercises.

PROFESSOR PATTEN.

MEDICAL PHYSICS

PROFESSOR C. C. STEWART

FIRST YEAR

A laboratory course with occasional informal lectures and recitations to correlate the work done in the laboratory. The topics included will be those essential to a proper understanding of physiology and allied subjects (Daniells' *Physics for Students of Medicine*). First Semester, fifty-four exercises.

ANATOMY

PROFESSOR FROST AND DR. P. BARTLETT

FIRST YEAR

Osteology, Arthrology, and a preliminary study of the viscera. A course of recitations and demonstrations. Preparations from the Anatomical Museum are given out for study. An opportunity is offered to follow the dissections of the human body made by the men of the Second and Third classes. The written examinations covering the work in osteology and arthrology are final if satisfactory. (Gray's *Anatomy*, last edition.) First and Second Semesters, one hundred and four exercises.

PROFESSOR FROST AND DR. P. BARTLETT.

SECOND YEAR

Study of the muscles, blood vessels, lymphatics, and nerves by systems and by regions. Recitations and occasional lectures. Demonstrations by the instructor from manikins, plates, dried and wet preparations, and the cadaver. Dissection and demonstration of at least two parts by each student to the class. (Gray, Gerrish.)

DR. P. BARTLETT.

THIRD YEAR

Study of the central nervous system and the viscera. Regional and Applied Anatomy. Lectures, recitations, and demonstrations. Dissection and demonstration of the remaining parts by the student. (Gray, Treves, Quain.)

PROFESSOR FROST.

PHYSIOLOGY

PROFESSORS W. T. SMITH AND C. C. STEWART

FIRST YEAR

1. A course of lectures and quizzes upon the essential facts of Physiology bringing them into relation as far as possible with future work. First Semester, fifty-four exercises. PROFESSOR SMITH.

2. A course of lectures, demonstrations, and laboratory work upon the physiology of nerve and muscle, and of the blood and circulation. Each student will perform the more important experiments in these subjects for himself. Second Semester, fifty-four exercises in the laboratory, two hours each. PROFESSOR STEWART.

SECOND YEAR

Four hours of laboratory work and one lecture or quiz each week.

The work to be done by the student includes experiments on digestion, respiration, the nervous system, and the special senses.

Demonstrations of the more difficult subjects will be made before the Class.

During the second year each student will be expected to write a thesis on some topic included in the work, consulting so far as possible the original sources. PROFESSOR STEWART.

The Physiological Laboratory has recently been equipped with the latest apparatus. A sufficient number of complete sets has been provided to furnish one to every two students. These include kymograph, induction coil, and stimulating apparatus, tambours, apparatus to illustrate the circulation, etc.

The General Laboratory is furnished with instruments needed for research, for which opportunity is offered to advanced students.

CHEMISTRY

PROFESSOR E. J. BARTLETT AND DR. BOLSER

FIRST YEAR

1. A systematic course, reviewing the Non-Metallic Elements rapidly, developing the more essential theories, and treating the Metallic Elements and their compounds, by lectures, recitations

(Newth's *Inorganic Chemistry*), and by Qualitative Analysis in the laboratory (A. A. Noyes's *Qualitative Analysis*). This course divides the time about equally between one-hour recitations and two-hour laboratory exercises. First and second Semesters, fifty-four exercises in each, one or two hours. DR. BOLSER.

SECOND YEAR

2. (a) A short course in the more important compounds of carbon.

(b) Physiological and Medical Chemistry. A course with laboratory, lecture, and recitation work giving special attention to the carbohydrates and albumens, to Toxicology, the Chemistry of the body, and the applications of Chemistry to medicine. First and second Semesters. PROFESSOR BARTLETT.

HISTOLOGY, BACTERIOLOGY, AND PATHOLOGY

PROFESSOR KINGSFORD

FIRST YEAR

1. Histology. Laboratory work with recitations. The elementary tissues are first studied, then the various organs, including special study of the brain and cord. Each student may prepare and retain sections.

Six hours in the laboratory each week.

This course extends through the first two-thirds of the year.

2. Bacteriology. Laboratory demonstrations supplemented by recitations. The aim in this course is to make it as practical as possible. Special attention is given to the examination of sputum for tubercle bacilli, to the diagnosis of diphtheria, the technic of the Widal serum diagnosis in typhoid fever, and to staining gonorrhoeal pus. Each student is required to isolate a number of different organisms. Special instruction is given to any student desirous of doing research work, either in bacteriology or pathology.

Six hours in the laboratory each week.

This course follows Histology and extends through the last third of the year.

SECOND YEAR

3. Pathology. Six hours each week of laboratory work throughout the year. Lectures, three times each week, illustrated by demonstrations of gross lesions. The laboratory work is devoted to the study of the pathological histology of inflammation, the infectious diseases, tumors, etc. The sections may be prepared and retained by the student.

MATERIA MEDICA AND THERAPEUTICS

PROFESSOR BALLIET AND DR. P. BARTLETT

SECOND YEAR

1. Materia Medica is taught by recitations three times each week in the second Semester. DR. P. BARTLETT.

THIRD AND FOURTH YEARS

2. Therapeutics. A course of sixty lectures with frequent quizzes and illustrations by the study of clinical cases at the Hospital.
PROFESSOR BALLIET.

GYNECOLOGY

PROFESSOR DUDLEY AND DR. GILE

THIRD AND FOURTH YEARS

1. A course of twenty-four lectures illustrated by diagrams, supplemented by clinical teaching at the Hospital. The students make examinations of the cases presented and follow the operations and after-treatment. PROFESSOR DUDLEY.

2. Recitations once a week supplemented by further clinical instruction at the Hospital through the year, as described above. Clinical material is abundant. DR. GILE.

OBSTETRICS

DR. POLAK AND DR. FROST

THIRD AND FOURTH YEARS

1. A course of twelve lectures illustrated by diagrams and the use of manikins, with occasional quizzes. DR. POLAK.

2. Recitations with section work upon manikins by the student, two hours each week. DR. FROST.

Preparation is thus secured for a course in the Out-patient department of a Lying-In Hospital which the student is advised to take during the vacation at the end of the third year. Evidence of attendance upon eight cases of confinement is required of candidates for the degree.

3. Maternity cases are received at the Hospital, and when possible they serve to illustrate to the students in small sections the teaching and methods of obstetrics.

SURGERY

PROFESSOR NANCREDE, DR. SMITH, AND DR. P. BARTLETT

THIRD YEAR

1. A course in Minor Surgery given partly at the College and partly at the Hospital. Demonstrations and quizzes. Three hours each week. DR. P. BARTLETT.

THIRD AND FOURTH YEARS

2. A course of seventy-two lectures supplemented by many clinical lectures and operations at the Hospital. The student is given cases to examine and study, and makes his report before the class.
PROFESSOR NANCREDE.

FOURTH YEAR

3. A course of recitations with further clinical lectures and study of individual cases by the student at the Hospital. Three hours each week. DR. SMITH.

OPHTHALMOLOGY

PROFESSOR STANDISH

A course of twelve didactic lectures with many clinical lectures and operations before the class. An excellent opportunity is afforded each student to study these cases.

LARYNGOLOGY AND OTOLOGY

PROFESSOR LELAND

A course of twelve didactic lectures with clinical lectures and many operations before the class. Opportunity to study and follow the treatment of individual cases.

MEDICAL JURISPRUDENCE

PROFESSOR ORDRONAUX

A course of ten didactic lectures.

MENTAL DISEASES

PROFESSOR COWLES

A course of ten didactic lectures.

HYGIENE

PROFESSOR CONN

A course of nine didactic lectures.

DERMATOLOGY

DR. TOWLE

A course of twelve didactic lectures, supplemented by clinical lectures at the Hospital.

MEDICINE

PROFESSOR GILE AND DR. FROST

THIRD YEAR.

1. Physical Diagnosis. Study of methods of examination and physical diagnosis, with enough of pathology to make the variations in the physical signs intelligible. About one-third of the course is given to lectures, one-third to recitations, and one-third to clinics. Five hours each week.

PROFESSOR GILE.

FOURTH YEAR

2. Medicine. Lectures and recitations with clinical examinations at the Hospital through the year. Six hours each week, with one or two hours additional each week of clinical examination at the Hospital.

PROFESSOR GILE.

3. Diseases of Children. Two recitations and one hour of clinical work each week.

DR. FROST.

4. Diseases of the Nervous System. Two recitations and one hour of clinical work each week.

DR. FROST.

TEXT-BOOKS

ANATOMY — Gray, Gerrish, Quain, Treves.
HISTOLOGY — Piersol, Stöhr.
BACTERIOLOGY — Williams, Sternberg.
PHYSIOLOGY — Kirkes (Blakiston's edition). For reference, American Text-book of Physiology, Landois-Stirling, Schäfer, Foster.
CHEMISTRY — Bartlett's Laboratory Exercises, Newth's, Bartley's Medical Chemistry, Ogden's, Tyson's or Purdy's Urinary Analysis, Rockwood's Laboratory Manual.
THERAPEUTICS — Balliet's Notes, Wood, Bartholow.
PRACTICE OF MEDICINE — Osler, Tyson, Thompson.
PHYSICAL DIAGNOSIS — Cabot, Loomis, Butler's Diagnostics.
PATHOLOGY — Stengel, Ziegler, Coplin, Green.
SURGERY — Nancrede, American Text-book of Surgery, Wharton and Curtis, Park, Warren.
OBSTETRICS — Williams, Hirst, Lusk.
LARYNGOLOGY — Browne's Diseases of the Throat; Barr, Diseases of the Ear; McBride, Diseases of the Throat, Nose, and Ear; Bishop, Diseases of the Ear, Nose, and Throat.
DISEASES OF CHILDREN — Holt.
DISEASES OF WOMEN — Pryor, Dudley, Reed.
MEDICAL JURISPRUDENCE — Witthans and Becker, Taylor.
MEDICAL PHYSICS — Daniell.
BIOLOGY — Coulter's Plants.
COMPARATIVE ANATOMY — Wiedersheim.
EMBRYOLOGY — McMurrich.
DERMATOLOGY — Stelwagon.
DICTIONARY — Gould, Duane, Dorland.

EXAMINATIONS AND GRADUATION

During the first year of the study of medicine in this School examinations will be required in General Biology, Comparative Anatomy, Human Histology and Anatomy, Physiology, Medical Physics, Chemistry, and Bacteriology. At the end of two full years of the study of medicine and two courses of lectures, an examination will be required in Systematic Anatomy, Physiology, Medical Chemistry, Embryology, Materia Medica, and Pathology. At the end of three full years of the study of medicine and three courses of lectures, an examination will be required in Systematic and Regional Anatomy, Pathology, Physical Diagnosis, Therapeutics, Minor Surgery and Obstetrics. The examinations thus taken, if satisfactory, shall stand as final.

Certificates of examinations passed at other Colleges are not accepted in place of our own examinations for a degree, except as stated under Requirements for Admission.

Every candidate for the degree of Doctor of Medicine must (1) be more than twenty-one years of age; (2) be of good moral character; (3) have graduated from a registered College or satisfactorily completed a full course in a registered academy or high school; or have had a preliminary education considered and accepted as fully equivalent; (4) have studied medicine (unless matriculated before January 1, 1898), not less than four full school years of at least nine months each, including four satisfactory courses of at least six months each, in four different calendar years, in a medical college registered as maintaining at the time a satisfactory standard; (5) present evidence that he has dissected all parts of the cadaver; (6) present evidence of attendance upon eight cases of confinement; (7) pass a satisfactory written examination in Biology, Comparative Anatomy, Histology, Anatomy, Physiology, Medical Physics, Chemistry, Bacteriology, Embryology, Materia Medica, Pathology, Therapeutics, Obstetrics, Gynecology, Surgery, and Practice.

Final (oral) examinations before Delegates from the New Hampshire and Vermont Medical Societies will be held on the last Monday of February, 1904, and on March 31, 1905.

EXPENSES

Tuition is to be paid in two equal installments on October first and March first. Laboratory fees must be paid to the Treasurer at the beginning of the year.

TUITION — For each of the four courses	$100.00
Chemicals and ordinary breakage, First year	6.00
Second year	5.00
Bacteriology and Histology. Material, First year	5.00
Pathology. Material, Second year	3.00
Biology and Comparative Anatomy. Material, First year	6.00
Embryology. Material, Second year	3.00
Physiology. Material, First year	5.00
Second year	4.00
Anatomy. "Material"	at cost

SCHOLARSHIPS

By the gift of one thousand dollars, Mrs. Mary H. Chamberlain of Princeton, New Jersey, has established, in memory of her husband, the William M. Chamberlain scholarship in Dartmouth Medical School. The income of the above-named sum is annually to be loaned to such worthy and indigent medical students as may need its aid toward payment of lecture fees. The loan is to be for four years, without interest. A few other scholarships are available on like terms.

HOSPITAL

The MARY HITCHCOCK MEMORIAL HOSPITAL, a cottage hospital of thirty-six beds and a model in construction, furnishes clinical material and the opportunity to learn the methods of the most advanced hospital work.

In operating rooms with modern appointments the student has a close view of a large number of operations in general surgery and

gynecology and of special operations upon the eye, ear, throat, and nose. He is able to follow these cases and note the aftertreatment and results. The medical clinics are carefully used to illustrate the didactic teaching.

The appointment of a recent graduate as house officer is made every six months, and the position affords full and valuable experience. The terms of service begin on April first and October first and continue one year.

☞ Those desiring further information may address WILLIAM T. SMITH, M.D., Dean, Hanover, N. H.

GRADUATES, FEBRUARY 23, 1904

Batchelder, Edward Carpenter, A.B.
Bishop, Eliot, A.B.
Bliss, George Stephen
Caverly, Fred Stickney
Cobb, Gardner Nathan, A.B.
Hanson, William Thomas
Hedin, Carl Johan
O'Connell, Andrew Edward
Severance, Robert Nathaniel
Shanley, John Dawson

SUMMER SCHOOL

CALENDAR

1904 . . . . . July 11 to August 13.
1905 . . . . . July 10 to August 12.

SUMMER SCHOOL

FACULTY

SESSION OF 1904

WILLIAM JEWETT TUCKER, D.D., LL.D., PRESIDENT.

THOMAS WILSON DORR WORTHEN, A.M., DIRECTOR *and Cheney Professor of Mathematics.*

EDWIN JULIUS BARTLETT, A.M., M.D., *New Hampshire Professor of Chemistry.*

EDWARD LEEDS GULICK, A.M., *Instructor, C.S.D., 1889–1891. Instructor in English, Lawrenceville School, Lawrenceville, N. J.*

HERBERT DARLING FOSTER, A.M., *Professor of History.*

WARREN AUSTIN ADAMS, PH.D., *Assistant Professor of German.*

CHARLES HENRY RICHARDSON, PH.D., *Instructor in Mineralogy and Geology.*

GEORGE RICHARD LYMAN, A.M., *Instructor in Botany.*

RICHARD WELLINGTON HUSBAND, A.M., *Assistant Professor of Greek and of Classical Philology.*

PRESCOTT ORDE SKINNER, A.M., *Instructor in the Romance Languages.*

ARTHUR AVERY BACON, A.B., *Instructor in Mathematics and Astronomy, 1900–1901. Professor of Physics, Hobart College, Geneva, N. Y.*

FRANKLIN CROCKER LEWIS, A.M., *Instructor in Pedagogy.*

LEON BURR RICHARDSON, A.M., *Instructor in Chemistry.*

AVERY ELDORUS LAMBERT, B.S., *Assistant in Biology.*

RALPH MARTIN BARTON. A.B., *Instructor in Mathematics.*

For list of lectures, with subjects, see page 314.

STUDENTS

Bailey, Dearborn, Student, *Mathematics*, Dedham, Mass.
Baker, Roy Whitaker, *Mathematics, Chemistry*, Franklin, N. H.
Bell, John Howard, Student, *Mathematics, Chemistry, Mineralogy*, West Derry, N. H.
Besse, Stanley, Student, *English*, Newburyport, Mass.
Brockway, John, Student, *French, Geology, Mineralogy*, West Hartford, Vt.
Burnham, Kingsley Allan, B.S. (Dartmouth), *Chemistry*, Boston, Mass.
Childs, Francis Lane, Student, *Chemistry*, Henniker, N. H.
Clough, William Plummer, Student, *Mathematics, Mineralogy, Biology*, New London, N. H.
Coddington, Jessie Theodosia, Teacher, Training School for Teachers, *History, French*, Brooklyn, N. Y.
Cogswell, Mariana, A.B. (Wellesley), Teacher, Wellesley College, *Classical Philology, German*, Lakeport, N. H.
Condon, Kate Angela, Teacher, Public School 170, *Pedagogy, English*, New York, N. Y.
Cooke, Henry Elentheros, Jr., Student, *Mathematics, Chemistry*, Warren, O.
Cullivan, Annie Elizabeth, Teacher, Public School 168, *Pedagogy, English*, New York, N. Y.
Daniels, Ella Louise, Teacher, Arms Academy, *Biology*, Shelburne Falls, Mass.
Davies, Rebecca Henrietta, Teacher, Girls' High School, *Physics*, Brooklyn, N. Y.
Dillon, Walter Sidney, Student, *English, Biology, Mineralogy*, Fitchburg, Mass.
Dodge, Amos, Student, *Mathematics*, Concord, N. H.
Dow, Eugene Madison, A.B. (Dartmouth), A.M. (Harvard), Teacher, Volkmann School, *English, Mathematics*, Boston, Mass.
Downey, John Eustis, Student, *Mathematics*, Newtonville, Mass.
Dunlap, John Hoffman, Student, *Chemistry, Geology*, Concord, N. H.
Edwards, Frederic, Student, *French, Mathematics*, Revere, Mass.
Emerson, Emily Sophia, Student (Smith), *Biology*, Hanover, N. H.
Felt, Paul Revere, Student, *Mathematics*, Hillsboro Bridge, N. H.
Fitts, Ralph Corydon, Student, *English, Chemistry, Mineralogy*, Manchester, N. H.
Fletcher, Walter Holden, A.B (Dartmouth), Principal Gilmanton Academy, *Biology*, Gilmanton, N. H.
Foley, William Thomas, Student, *Geology, Mineralogy*, Bartlett, N. H.

Gallagher, Morrill Allen, Student, *History*, Roxbury, Mass.
Gane, William Howard, *Chemistry*, White River Junction, Vt.
Gilbert, Edgar, Student, *Pedagogy*, *German*, *Chemistry*, Lawrence, Mass.
Gilman, Joseph Taylor, Student, *Biology*, *Geology*, *Mineralogy*, Exeter, N. H.
Goodrich, Moses Foster, B.S. (Worcester Polytechnic Inst.), Teacher, English High School, *Pedagogy*, *Biology*, Lynn, Mass.
Grant, James Moseley, Student, *Mathematics*, *Mineralogy*, Denver, Colo.
Greenlaw, Frank Murray, B.S. (Mass. Inst. Technology), Teacher, Rogers High School, *Biology*, *Mineralogy*, Newport, R. I.
Griffin, Thomas Jerome, *Mathematics*, *Biology*, So. Hadley Falls, Mass.
Hale, Glenn Joel, Student, *History*, *Biology*, *Mineralogy*, Windsor, Vt.
Hall, Carl Albe, *German*, *Mathematics*, Concord, N. H.
Halley, Erskine Burt, Student (Williams), *Chemistry*, Troy, N. Y.
Harriman, Minnie Frances, Teacher, Winchester High School, *Chemistry*, Winchester, Mass.
Hartman, Max, Student, *Biology*, *Mineralogy*, Norwood, Mass.
Hazen, Clarence Milton, A.B. (Dartmouth), *Biology*, *Mathematics*, Hanover, N. H.
Hazen, Ethel Augusta, A.B. (Smith), *Biology*, Hanover, N. H.
Heath, Helen Celia, A.B. (Vassar), Teacher, St. Mary's School, *Mathematics*, Concord, N. H.
Hill, Lawrence Richardson, B.L. (Dartmouth), Student (Harvard Medical School), *Chemistry*, Boston, Mass.
Hills, Clarence Clare, Student, *English*, *Spanish*, *Biology*, *Mineralogy*, Columbus, Ohio.
Holmes, Percival Jerauld, Student, *Spanish*, *Biology*, Somerville, Mass.
Hunt, Richard Field, Student, *Mathematics*, Newtonville, Mass.
Hutchinson, Jonas, Student, *History*, Chicago, Ill.
Keady, John Thomas, Student, *English*, *Mineralogy*, Wakefield, Mass.
Knibbs, John William, Jr., Student, *English*, *German*, Worcester, Mass.
Lane, Robert Raymond, Student, *Mathematics*, *Biology*, Westbrook, Me.
Lewin, Fanny Sophronia, *Mathematics*, *Chemistry*, Hanover, N. H.
Lewis, Nellie Caroline, Teacher, Stevens High School, *Mathematics*, Claremont, N. H.
Lewis, Robert Park Morrison, Student, *Mathematics*, Lawrence, Mass.
Locke, Isaac Beauchamp, *Mathematics*, Belmont, Mass.
Lord, Grace Elizabeth, Teacher, Lincoln Academy, *Physics*, *Biology*, Kings Mt., N. C.
McDevitt, Harry Sullivan, Student, *Mathematics*, *Mineralogy*, Allston, Mass.
McDonald, Jerome Ambrose, Student, *Mathematics*, So. Boston, Mass.
McElwain, John Hazen, *Mathematics*, Holyoke, Mass.
MacNary, Alice Beckwith, Teacher, Public School 136, *Pedagogy*, *English*, Brooklyn, N. Y.
Macullar, Harvey Sumner, Student, *History*, *Biology*, *Mineralogy*, Cambridge, Mass.
Maxwell, Charles Robert, Student (Columbia Univ.), *Biology*, *Geology*, Waitsfield, Vt.

Mayer, Otto Samuel, Student, *English*, New York, N. Y.
Merrill, Joseph Henry, Student, *English*, *Chemistry*, *Mineralogy*, Danvers, Mass.
Morse, Kenneth Lee, A.B. (Dartmouth), Teacher, Dean Academy, *Chemistry*, Franklin, Mass.
Oakford, Edwin Lines, Student, *Mathematics*, Peoria, Ill.
Orr, Horace Fielding, *Chemistry*, Chelsea, Mass.
Parker, Charles Stevens, Student, *Spanish*, *Mathematics*, Brookline, Mass.
Pearson, Robert Houghton, Student, *Mathematics*, *Chemistry*, Concord, N. H.
Peirce, Joshua Winslow, Student, *English*, *Mathematics*, *Mineralogy*, Portsmouth, N. H.
Pockridge, Anna, Teacher, Public School 168, *Pedagogy*, *English*, New York, N. Y.
Powers, Lillian Irene, Teacher, Public School 5, *German*, Brooklyn, N. Y.
Rix, John Burton, Student, *Mathematics*, *Biology*, *Geology*, Utica, N. Y.
Rumsey, Florence Maria, A.B. (Smith), *Mathematics*, *Education*, Batavia, N. Y.
Ruppel, Henry Erich Kasemere, A.M. (Dartmouth), *Mineralogy*, Brooklyn, N. Y.
Sanderson, John Franklin, Student, *English*, *Mathematics*, *Biology*, Hanover, N. H.
Slayton, William Harvey, Student, *Biology*, *Geology*, Lebanon, N. H.
Smith, Eugene Greely, Student, *Biology*, *Mineralogy*, Templeton, Mass.
Smith, Pierre Journeay, Student, *German*, *Mathematics*, Upper Montclair, N. J.
Soule, Arthur Turner, *Mathematics*, Somerville, Mass.
Stimson, Harry Bartlett, Student (Yale), *Spanish*, New York, N. Y.
Stimson, Lucile Hinkle, A.B. (Vassar) *Mathematics*, New York, N. Y.
Storrs, Harry Carl, Student, *German*, *Geology*, Hanover, N. H.
Stone, Fred, Student, *English*, *Spanish*, Windsor, Vt.
Tarbell, John Appleton, Student, *Mathematics*, Somerville, Mass.
Taylor, Levi Marlon, Student, *Biology*, Haverhill, Mass.
Thomas, Theodora, Teacher, Brearley School, *Mathematics*, New York, N. Y.
Varick, Remsen, Student, *Mathematics*, Manchester, N. H.
Walsemann, Amelia, Teacher, Public School 180, *Pedagogy*, *English*, *Mathematics*, New York, N. Y.
Walsemann, Mary, Teacher, Public School 68, *Pedagogy*, *English*, *Mathematics*, New York, N. Y.
Ward, Harold Edward, Student, *Geology*, *Mineralogy*, Kennebunk, Me.
Weiss, Frances Adler, Teacher, Public School 184, *Pedagogy*, *History*, *English*, New York, N. Y.
Whitney, Alvin Goodnow, Student, *Geology*, Groton, Mass.
Williams, Walter Longworth, Student, *English*, *German*, *Biology*, *Mineralogy*, Brooklyn, N. Y.
Wood, Bourne, Student, *English*, *Biology*, *Mineralogy*, Middleboro, Mass.
Woodworth, Charles Parker, Student, *Mathematics*, *Mineralogy*, Concord, N. H.

Worthen, Thacher Washburn, Student, *Mathematics*, Hanover, N. H.
Wyman, William Ulysses, Student, *Mathematics, Mineralogy*, Somerville, Mass.
Young, Percy Lawrence, Student, *Mathematics*, Boston, Mass.

GENERAL STATEMENT

In the summer of 1900 a School was established in charge of members of the faculty, for the benefit of teachers who might wish to take short courses of College grade. The success of the School has led to more definite and continuous courses of study, available both to teachers and to college students. It is the object of the School to give instruction in Pedagogy, and in the methods of teaching specific subjects, and at the same time to make provision for advanced study, looking toward a degree. Certificates are given for attendance on lecture courses, for class-room or laboratory work, for examinations which are offered at the close of each course.

College students, completing courses which are marked as class-room courses or their equivalents, are given credit for these courses according to their value in the curriculum.

COURSES OF INSTRUCTION, 1904

THE THEORY AND PRACTICE OF EDUCATION — MR. LEWIS

This course consisted of forty-five exercises, about evenly divided between the theory and practice of education.

(*a*) *Theory*. Doctor H. H. Horne's "Philosophy of Education" was the basis for this part of the work. It comprised a study of educational ideals and foundations with frequent suggestions for practice. Each exercise began with a brief written test on the text-book assignment. The remainder of the hour was spent in free and informal discussion based on the test and daily outside readings. There were occasional supplementary lectures by the instructor.

(*b*) *Practice of Education or Organization and Administration of Schools and School Systems*. This phase of the work was developed partly by lecture and partly by class discussion.

The work covered the following topics: The General Principles of School Management and Method, together with psychological basis for both, briefly summarized; the Course of Study; Grading and Promoting of Pupils; School Sanitation and Hygiene; School Decoration; and the Educational Resources of the Community.

This was equivalent to a course of three semester hours.

HISTORY — PROFESSOR FOSTER

Mediæval and Modern European History 1492–1789. Twenty-five lectures designed to outline the development of modern Europe from the Renaissance and Reformation to the French Revolution. Five quizzes or personal conferences, the latter designed especially to be of practical service to teachers in methods of study and teaching. The following topics were discussed: Political and Religious Conditions in Europe at the end of the Fifteenth Century; the Protestant Revolution in Germany; the Reformation outside of Germany; the Counter Reformation and the Beginning of the Religious Wars; France and the Thirty Years' War; the Age of Louis XIV; Prussia, Russia, and the Eastern Question in the Seventeenth and Eighteenth Centuries; the Struggle for European and Colonial Supremacy in the Eighteenth Century. Course 2, page 125.

ENGLISH — MR. GULICK

1. *Course for Teachers.* A rapid survey of the whole field of English and American Literature, followed by an examination of the typical forms of poetry and the theory of poetics.

2. *Shakespeare.* The critical and appreciative study of Shakespeare's plays, with lectures upon Shakespeare as a dramatic artist. Daily reports upon assigned readings. Course 22, page 88.

FRENCH — MR. SKINNER

1. *Phonetics of French.* Careful practice in pronunciation; composition and conversation; translation and rapid reading of texts; discussion of problems of teaching French. Course 3 or Course 4, page 89.

2. A more advanced course, with practice in speaking and writing French, with special training in the use of common idioms so as to acquire the ability to understand readily spoken French. Course 9, page 90.

SPANISH — MR. SKINNER

The course was for beginners. The work was in Spanish grammar, composition, and translation, and was adjusted to the needs of the members of the class. Course 1, page 93.

GERMAN — PROFESSOR W. A. ADAMS

1. *Elementary Course.* Careful practice in pronunciation, simple exercises in composition and conversation. After a rapid review of the subject of nouns, adjectives, and pronouns, the work in the grammar began with verbs. Reading of texts and constant practice in reading at sight.

German 2, page 97.

2. *Advanced Course.* Goethe's "Hermann und Dorothea" and "Egmont" were read. Outside reading assigned: to some, Goethe's "Götz von Berlichingen;" to others, Hoffmann's "Historische Erzählungen." German was to a considerable extent made the language of the class-room.

CLASSICAL PHILOLOGY — PROFESSOR HUSBAND

1. *History of the Latin Language.* Special study of accent and the inflection of the verb. Reading of inscriptions to illustrate the development of the language. Readings from the Roman grammarians. Lindsay, *The Latin Language.* Conway, *The Italic Dialects.* Keil, *Latini Grammatici* (Vols. I, II, V), Vergil, *Aeneid* (for application of the subjects of the lectures).

2. *History of the Greek Language.* Questions of pronunciation and accent. Comparative study of the dialects, with readings from inscriptions. Study of the language of Homer in the light of comparative grammar. Brugmann or Meyer, *Griechische Grammatik.* Riemann et Goelzer, *Grammaire Comparée, Phonetique.* Solmsen, *Inscriptiones Graecae ad illustrandas Dialectos.* Monro, *Homeric Grammar. Text of the Iliad.*

These courses are of graduate grade and each counts three semester hours for those who are candidates for the degree of Master of Arts.

MATHEMATICS — PROFESSOR WORTHEN AND MR. BARTON

1. *Course for Teachers.* Outlines of Arithmetic, Algebra, and Plane Geometry, with discussion of methods, Graphic Algebra, and Algebraic Geometry.

2. *Algebra.* Quadratic and indeterminate equations, ratio and proportion, variation, series, binomial formula, logarithms, permutations and combinations, theory of equations, graphic algebra. Course 1, page 100.

3. *Solid Geometry.* With original demonstrations and the solution of problems relating to the surfaces and volumes treated. Course 2, page 100.

4. *Plane Trigonometry.* With applications to problems in surveying. Spherical Trigonometry. Courses 2a, 4, page 100.

5. *Analytic Geometry.* An elementary course involving the use of rectangular and polar systems. It included right lines, conic sections, the more important higher and transcendental curves. The principal object in view was the work in advance, but it had a direct bearing on the teaching of the earlier Mathematics, especially Algebra. Courses 5, 7, page 101. The time was extended one-half week in order to complete this course.

PHYSICS — PROFESSOR BACON

1. An elementary course, chiefly laboratory work, with occasional lectures. Experiments were selected to meet the desires of the students.

2. A course in the theory and use of instruments of precision and in the experimental verification and application of physical laws. Course 3, page 106.

CHEMISTRY — PROFESSOR BARTLETT AND MR. L. B. RICHARDSON

1. *Elementary Chemistry.* Lectures, recitations, and laboratory work. Special emphasis was laid upon the general principles of Chemistry, the Notation in its experimental and arithmetical meaning, and the Nomenclature and Terminology in their applications. Course 2, page 111.

2. *Qualitative Analysis.* A study of the metals and their compounds by lectures, recitations, and by Qualitative Analysis in the laboratory. Course 3, or course 4, page 111.

3. *Quantitative Analysis.* Elementary and advanced gravimetric and volumetric methods. Course 7, or course 8a, page 112.

BOTANY — MR. LYMAN

1. *Elementary Botany.* An introductory course giving a general survey of the vegetable kingdom. The lectures treated of some of the fundamental principles of Biology common to both plants and animals, and gave a comprehensive review of the physiology, morphology, and reproduction of plants, special attention being paid to the lower plants, and to the relation of fungi and bacteria to fermentation, putrefaction, and disease. The laboratory work consisted largely of the microscopic examination of some of the principal representatives of the vegetable kingdom. (Coulter's *Plants.*) Course 1, page 114.

2. *Phanerogamic Botany.* A general course on the higher plants. It treated of the morphology and development of the flowering plants, embracing the main topics of their structure, functions, and habits, together with their classification, distribution, adaptations, and uses. Course 6, page 116.

ZOÖLOGY — MR. LAMBERT

3. An introduction to the study of animal life. The structure and life history of a series of typical animals were observed and interpreted in the laboratory in order to gain an insight into the elementary principles of the science. Thus the differences between animals and plants, the evolution and interrelation of animal forms, the phenomena which lie at the basis of nutrition, growth, and heredity, the interaction which exists between animals and their environment, etc., were discussed in the lectures and illustrated in the laboratory. Course 2, page 115.

NATURE STUDY — MR. LAMBERT

This course was designed to give a general review of the field of Zoölogy. Instruction consisted of recitations, discussions, and assigned readings. Special attention was paid to the laws governing the development, variation, and distribution of animal forms.

Opportunities for collecting; instruction in the classification, preparation, and preservation of material for use in the school; and the equipment and care of aquaria were also offered to those who wished to avail themselves of the excellent advantages for such work that are afforded by the surrounding country. Jordan and Kellog's *Animal Life* was used in the class. This was equivalent to a course of two semester hours.

GEOLOGY — DR. C. H. RICHARDSON

This course embraced a general survey of the whole field of Geology, save the organic, and was planned to serve as an introduction to all work in the department. It included a discussion of the origin and classification of topographic forms, the economic significance of rivers, the formation and distribution of glaciers, the theories of volcanoes, the chemical and physical characteristics of igneous and sedimentary rocks, and the principles of mountain building. Course 2, page 121.

MINERALOGY — DR. C. H. RICHARDSON

1. A systematic course in the detection of economic minerals by blowpipe reactions and confirmatory chemical tests. Practical methods of determining rock-forming minerals, with occasional field work, were employed, and the origin, differences, economic uses, and annual output of the various ores were emphasized.

2. The design of this course was to show the composition and illustrate the modes of occurrence in nature of building materials such as marbles, granites, sandstones, and slates, and the carbon minerals, including coals, petroleum, and natural gas, to point out the commercial advantages of the localities in which they are found, the processes used in their extraction and treatment, their application to arts and industries, and the causes of loss and failure in mining and quarrying. Course 4, page 121.

EVENING LECTURES

During the session a series of lectures is given on Wednesday evenings.

LIST OF SPEAKERS AND SUBJECTS, 1904

Rev. Henry A. Stimson, D.D., "Two Recent Great English Schoolmasters."

Professor C. F. Richardson, "Is English 'Untaught and Unteachable'?"

Professor E. J. Bartlett, "The Alchemists."

Professor H. D. Foster, "Florence During the Renaissance." Illustrated.

Professor E. F. Langley, "Dante in Art." Illustrated.

The libraries, reading and reference rooms, museum, and gymnasium are open to students of the Summer School.

The single tuition fee for the session, whether one or more courses be taken, is $20, and the laboratory fees are those charged by the departments for the corresponding courses in College.

The next session will open July 10, and close Aug. 12, 1905. A circular containing an extended description of the courses will be issued early in the new year.

For further information, address Professor T. W. D. Worthen, Director, 11 Webster Avenue, Hanover, N. H.

ALUMNI ASSOCIATIONS

ALUMNI ASSOCIATIONS

THE GENERAL ASSOCIATION

FOUNDED IN 1854

President, HENRY D. PIERCE, '72.
Vice-Presidents, { EDWIN B. HALE, '65. / THOMAS R. PROCTOR, '79.
Secretary, FRANK A. SHERMAN, '70, Hanover, N. H.
Statistical Secretary, JOHN M. COMSTOCK, '77, Chelsea, Vt.
Treasurer, PERLEY R. BUGBEE, '90, Hanover, N. H.

Executive Committee:

WILDER L. BURNAP, '63 (*Chairman*). T. W. D. WORTHEN, '72.
ISAAC F. PAUL, '78 (*Secretary*). SAMUEL L. POWERS, '74.
GEORGE H. M. ROWE, '64. W. H. GARDINER, '76.
EDWIN F. JONES, '80.

Committee on Alumni Trustees:

JOSEPH A. DEBOER, '84 (*Chairman*). GEORGE D. HOLTON, '73.
JOHN L. STEVENS, '62. SAMUEL H. HUDSON, '85.
CHARLES G. DUBOIS, '91.

The membership includes all graduates of the College, the Thayer School of Civil Engineering, and the Chandler School of Science and the Arts. Others who receive from the College an Honorary Degree, or are elected at an Annual Meeting, shall be honorary members, but without the right of voting.

The Annual Meeting is held on Tuesday afternoon of Commencement week. The Alumni Dinner occurs on Wednesday, Commencement Day.

☞The attention of the Alumni is called to the fact that the Commencement exercises occur on Wednesday instead of Thursday.

By an arrangement with the Trustees of the College, five of their number are elected to their office upon the nomination by ballot of all Alumni of the College of three years' standing, one vacancy occurring in the Board at each Commencement.

Ballot forms, containing the names of five candidates who have been selected by the Nominating Committee for the vacancy, are sent to all Alumni two months before Commencement, and the voting closes at 6 P.M. on Tuesday evening of Commencement week.

LOCAL ASSOCIATIONS

BOSTON ASSOCIATIONS, FOUNDED IN 1864

President, STEPHEN M. CROSBY, '49.
Secretary, GUY W. COX, '93, 73 Tremont St.
Annual Reunion, third Wednesday in January.

NEW YORK ASSOCIATION, FOUNDED IN 1866

President, Right Reverend ETHELBERT TALBOT, '76.
Secretary, LUCIUS E. VARNEY, '99, 38 Park Row.
Annual Reunion, last Friday in January.

CINCINNATI ASSOCIATION, FOUNDED IN 1875

President, CHESTER W. MERRILL, '66.
Secretary, ALBERT H. MORRILL, '97, City Hall.
Annual Reunion in January.

WASHINGTON ASSOCIATION, FOUNDED IN 1876

President, HORACE S. CUMMINGS, '62.
Secretary, HENRY P. BLAIR, '89, 213 E. Capitol St.
Annual Reunion in January.

CHICAGO ASSOCIATION, FOUNDED IN 1876

President, GEORGE D. HOLTON, '73.
Secretary, KARL H. GOODWIN, '86, 378 Wabash Ave.
Annual Reunion in January.

NORTHWEST ASSOCIATION, FOUNDED IN 1880

President, Rev. ROBERT P. HERRICK, '80.
Secretary, WARREN UPHAM, '71, State Capitol, St. Paul, Minn.
Annual Reunion at Minneapolis in January.

PACIFIC COAST ASSOCIATION, FOUNDED IN 1881

President, THOMAS A. PERKINS, '90.
Secretary, S. C. SMITH, '97, 325 Sansome St., San Francisco, Cal.
Annual Reunion, second Thursday in April.

MANCHESTER (N.H.) ASSOCIATION, FOUNDED IN 1881

President, ELIJAH M. TOPLIFF, '52.
Secretary, ARTHUR H. HALE, '86.
Annual Reunion, second Tuesday in January.

CONCORD (N.H.) ASSOCIATION, FOUNDED IN 1891

President, J. EASTMAN PECKER, '58.
Secretary, WALTER H. FLETCHER, '00, Gilmanton, N. H.
Annual Reunion, last Wednesday in January.

CENTRAL AND WESTERN MASSACHUSETTS ASSOCIATION, FOUNDED IN 1892

President, HENRY L. PARKER, '56.
Secretary, J. FRANK DRAKE, '02, Springfield.
Annual Reunion at Worcester or at Springfield.

VERMONT ASSOCIATION, FOUNDED IN 1893

President, WILDER L. BURNAP, '63.
Secretary, FRED A. HOWLAND, '87, Montpelier.
Annual Reunion at Montpelier in October.

"THE GREAT DIVIDE" ASSOCIATION, FOUNDED IN 1895

President, ROBERT KERR, '73.
Secretary, FRED P. TUXBURY, '93, 229 Majestic B'ld'g, Denver, Colo.
Annual Reunion at Denver, second Tuesday in January.

DETROIT ASSOCIATION, FOUNDED IN 1895

President, ALFRED RUSSELL, '50.
Secretary, WILLIAM S. SAYRES, '76, 163 West Willis Ave.

ROCKY MOUNTAIN ASSOCIATION, FOUNDED IN 1895.

President, CLINTON H. MOORE, '74.
Secretary, ARTHUR G. LOMBARD, '79, Helena, Mont.

"OF THE PLAIN" ASSOCIATION, FOUNDED IN 1898

President, HENRY E. LEWIS, '72.
Secretary, CHARLES W. POLLARD, '95, 201 Paxton Block, Lincoln, Neb.

CONNECTICUT ASSOCIATION, FOUNDED IN 1901

President, HENRY L. SLACK, '72.
Secretary, ALBION B. WILSON, '95, 171 High St., Hartford, Conn.

IOWA ASSOCIATION, FOUNDED IN 1903

President, FRANK W. HODGDON, '94.
Secretary, EUGENE D. BURBANK, '91, Box 66, Des Moines, Ia.

SOUTHERN CALIFORNIA ASSOCIATION, FOUNDED IN 1904

President, REV. GEORGE A. GATES, '73.
Secretary, GEORGE H. BEAUDRY, '02, 710 West 1st St., Los Angeles, Cal.

MEDICAL SCHOOL ASSOCIATION, FOUNDED IN 1886

President, GRANVILLE P. CONN, M.D., '56.
Secretary, HOWARD N. KINGSFORD, M.D., '98, Hanover, N. H.

Annual Reunion at Concord, N. H., at the time of the meeting of the New Hampshire Medical Society, about May 20.

THE DARTMOUTH CLUB OF BOSTON, FOUNDED IN 1890

President, ISAAC F. PAUL, '78.
Secretary, HORACE G. PENDER, '97, 209 Washington St.

Regular meetings and dinners are held each month during the year, excepting January, July, August, and September. They are

held at the University Club, 270 Beacon Street, or at some up-town hotel, on the evening of the second Friday of the month. The Annual Meeting is that held in December.

THE DARTMOUTH CLUB OF THE CITY OF NEW YORK,
FOUNDED IN 1899. INCORPORATED 1904,
DARTMOUTH CLUB OF NEW YORK

President, WILSON GODFREY, '57.
Secretary, LUCIUS E. VARNEY, '99, 38 Park Row.

Club Rooms, 12 West 44th Street.

Annual corporate meeting held last Thursday in March. Regular meetings and dinners held in March, June, October, and December, generally on the first Friday of these months. Club night every Thursday evening.

PHI BETA KAPPA SOCIETY

Alpha of New Hampshire, founded in 1787.

President, CHARLES A. YOUNG, '53.
Vice-President, GEORGE D. LORD, '84.
Secretary, JOHN M. POOR, '97, Hanover, N. H.
Treasurer, FRANKLIN C. LEWIS, '00.

Annual meeting, in Hanover, last Tuesday in June.

CLASS OF 1904

Arthur Isaac Charron
Harry Woodburn Chase
Percival Bartlett Cobb
John Walter Cronin
John Storrs Fletcher
Henry Monroe Hall
William Aiken Kneeland
Herbert McKennis
Charles Francis McKnight
Jerome Meyers
Harry Garfield Nutt
Harrison George Roby
Franklin Henry Stowell
John Henry Watson, Jr.
Wilfred Dolloff Whittemore
Morton Owen Withey
Henry Elliot Woodward

PUBLICATIONS

All graduates are hereby earnestly requested to forward their publications to the College Librarian for preservation in the Alumni alcove.

The Annual Catalogue, usually issued in December, will be sent to each Alumnus who has expressed a desire to receive it and has given his address.

An Obituary Record is published annually in the Autumn, and will be sent to the Alumni with the Annual Catalogue in December.

A General Catalogue, much enlarged, with historic notes and views of buildings, old and new, was issued in December, 1900. This General Catalogue will be sent to any address on the receipt of $.50 for paper cover, or for $1.00 bound in cloth.

In June, 1905, the College will issue a supplement to the General Catalogue giving the addresses of the Alumni; the coöperation of the Alumni is earnestly solicited in making this issue an accurate and reliable one; the price of the Supplement will probably be 50 cents.

In response to numerous requests that the proceedings of the Webster Centennial be published, a volume was issued by the College describing the exercises in detail and giving the addresses and speeches, together with notes of reminiscences. The price is $1.50 for cloth, and $1.00 for paper cover.

The Proceedings in connection with the Laying of the Corner-Stone of the New Dartmouth Hall, including the Historical Address by Professor Brown, and speeches by Lord Dartmouth and others, will be published in book form, to be sold at $1.00.

Orders for any of the above publications may be sent to Professor C. F. Emerson, Dean, Hanover, N. H.

SUMMARY AND INDEX

GENERAL SUMMARY OF STUDENTS

Dartmouth College	857
Tuck School	16
Thayer School	31
Medical School	60
Total (deducting for names inserted twice)	926
Summer School (session of 1904)	98

DISTRIBUTION BY STATES AND COUNTRIES

Massachusetts	371	Wisconsin	3
New Hampshire	243	Kansas	2
Vermont	73	Michigan	2
Illinois	53	Nebraska	2
New York	48	Delaware	1
Maine	45	Indiana	1
Connecticut	23	Iowa	1
Ohio	14	Kentucky	1
Rhode Island	8	Maryland	1
Colorado	6	Montana	1
Missouri	6	New Mexico	1
New Jersey	6	South Carolina	1
Pennsylvania	4	Utah	1
Canada	3	Virginia	1
District of Columbia	3	Washington	1

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